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Including Syphilis

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INCLUDING SYPHILIS

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THE JOURNAL OF CUTANEOUS DISEASES

VOL. XXXV NOVEMBER, 1917 No. 9

Original Communications

SYMPOSIUM ON THE TEACHING OF SYPHILIS

THE TEACHING OF SYPHILIS*

JOHN A. FORDYCE, M.D.
Professor of Dermatology and Syphilology, Columbia University, College of Physicians and Surgeons
NEW YORK

THE IMPORTANCE OF THE PROBLEM

The significance of syphilis to the individual, the family and the community is now so generally recognized and has been so emphasized during the past decade that this phase of the subject scarcely needs to be enlarged on. It is difficult to obtain accurate statistics of the prevalence of syphilis among the general population; it depends more or less on statistics furnished by the Army or Navy, or by investigations carried on in various penal or other state institutions.

At Auburn, Boudreau found that nearly 19 per cent. of the males and 34 per cent. of the females gave a positive Wassermann reaction. Seven and one half per cent. of all patients admitted were potential sufferers from paresis, or some other form of cerebrospinal syphilis. It has been further stated that 15 per cent. of insane in institutions in New York state have paresis; that there are about 3,000 cases in such institutions and that about 800 die each year from this disease.

In a recently published bulletin of our war department, Major Vedder estimates that among the recruits of the United States army 17 per cent. are syphilitic when they enter the service. He believed that about 20 per cent. of the young adult population from which the army is recruited are infected. Two to 5 per cent. of the commissioned personnel are already infected when they enter the service, which would give an average of 5 per cent. infections from the class from which they are recruited. Sixteen per cent. of white enlisted men in

* Received for publication June 25, 1917.
* Read before the Section on Dermatology at the Sixty-Eighth Annual Session of the American Medical Association, New York, June, 1917.

the army are infected and 36 per cent. of colored enlisted men. Major Vedder further estimates that 13 per cent. of the insanity in the army is directly attributable to syphilis.

The frequency of death from syphilis is difficult to determine, as it is seldom given as a direct or contributing cause in death certificates. Many cases are reported as arteriosclerosis, apoplexy, or from other causes.

The application of the Wassermann reaction has shown that syphilis directly or indirectly is the cause of death in diseases in which its causation was formerly not known or only suspected. Lesser found that in 10 per cent. of all necropsies performed residuums of syphilitic disease were found. Syphilis is given by many authorities as the most frequent cause of death after tuberculosis. By others tuberculosis is not even excepted but syphilis is given first place. It is estimated that in large cities about 25 per cent. of individuals infected with syphilis die from some heart condition, and 3 to 4 per cent. from a syphilitic condition of the liver, kidneys, or other organs.

Dr. Symmers' report on 4,809 necropsies performed at Bellevue during the past ten years showed that in 6.5 per cent. effects definitely attributable to syphilis were present. It was found that in the majority of the cases, namely 55.7 per cent., the blood vessels bear the brunt of the affection, with disease of the liver in 37 per cent., and of the nervous system in 35.6 per cent.

Statistics of life insurance companies are of value. Blaschko found that of 8,000 policy holders one third died as the result of syphilis. His studies went back over a period of forty-five years and showed that the mortality among people infected with syphilis was 68 per cent. higher than among those who escaped infection. Furthermore, the mortality between the ages of 36 and 50 years was just twice as high among those who had had a syphilitic infection as among individuals of the same age free from such disease. The economic loss due to deaths from syphilis and the chronic invalidism resulting therefrom renders a systematic study of the disease of the highest importance.

The relation of syphilis to all branches of medicine is so intimate and for its mastery such highly technical knowledge is required that a new specialty is rapidly springing up to fill a legitimate need in our teaching schools. Whether this new department shall be controlled by the internist, the dermatologist, the genito-urinary surgeon or by an independent syphilographer are questions for the various schools to determine. The practical answer to the question is that syphilis should be taught by the one who has the necessary training to grasp the problem. The dermatologist is better trained to recognize the early manifestations and is apparently the one best fitted to develop syphilis as a well rounded specialty. To obtain the respect of his colleagues in

the other branches of medicine, however, he must attack the problem from many more angles than a dermatologic one and visualize the disease in its intimate relations to general medicine, surgery, neurology, ophthalmology and in fact to all of the branches of the healing art. When this is accomplished the possessor of such knowledge will be recognized as capable of teaching syphilis and not because he can differentiate the early syphilitic eruption from a dermatologic disease which it may simulate.

We require greatly enlarged facilities in our schools to educate students to comprehend the general pathology of syphilis, to diagnose and properly treat it, and to become teachers of future students. From an experience acquired in many years of teaching dermatology and syphilis, during the last five or six of which the question of syphilis has more directly interested me, I can, perhaps, formulate the requirements of a modern clinic and teaching department. We are primarily concerned in instructing students in the art of diagnosis and treatment. How can this best be accomplished?

First. By demonstrating a large group of cases in all stages of the disease and pointing out their characteristic features.

Second. By emphasizing the relative value of clinical observation as compared with laboratory methods and instructing students in the intimate details of how to employ and correlate both procedures.

Third. By developing and teaching a proper therapy in the various stages of the disease with indications and contraindications for the specific drugs and the by-effects of each.

DEPARTMENT OF SYPHILOLOGY

The department of syphilology in a teaching institution should be organized somewhat as follows:

1. *The Head of the Department and a Trained Staff.*—The head of the department of syphilis in a modern medical school should have the active support of a trained personnel which should include, beside the chief of clinic and numerous assistants, a serologist, a technician, a man trained in neurologic and ophthalmoscopic examinations, and an assistant trained in general medical diagnosis. The head of the department should have a thorough training as a clinician familiar with all phases of syphilis and dermatology. He should be fairly versed in neurology and know when to look for involvement of the central nervous system, to appreciate its significance, and to know how and when to properly treat this complication. Furthermore, he should know something about the use of the ophthalmoscope to inspect the deeper eye lesions, and should be able to grasp the symptoms caused by cardiovascular syphilis and the significance of hypertension. He must also

know serology and be able to comprehend the immunity process set in operation by a general infection. A knowledge of the action and relative value of the specific drugs used in combating the infection should be acquired by careful and prolonged observation. The teachers must be well balanced and free from fads. We have too many half trained so-called teachers impressed with their superior knowledge who take pleasure in discrediting the exact and well recognized diagnostic and therapeutic methods. Their so-called knowledge is not the result of careful training over years, but based on a limited individual experience, second hand information and conflicting laboratory reports. The teacher is responsible to the students for conveying the correct methods of diagnosis and treatment so that their future patients may receive the care which is their due. How many well trained practitioners have we who conform to the requirements outlined and to whom we can conscientiously refer our patients? It is a matter of every-day experience to see the victims of syphilis under the care of supposedly well trained men suffering with headache, pupillary changes or obscure mental symptoms, all of which are wrongly interpreted as due to neurasthenia or worry over the infection; every cause except the correct one is invoked. In such cases lumbar puncture and an examination of the spinal fluid reveals the correct condition and properly directed treatment cures it.

2. *The Equipment of the Clinic.*—The clinic should have a well-equipped laboratory provided with a dark field microscope, a trained technician who understands its use, and one thoroughly familiar with the process of fixing, embedding, cutting and staining microscopic sections. There should also be a serologic laboratory either directly under the control of the clinic or in the department of bacteriology or pathology. The serologic work should be thoroughly standardized and carefully controlled by clinical observations so that a satisfactory technic may be developed and employed. It is only possible to make and interpret such reactions if the results are controlled by the clinician. The latter should know that the blood Wassermann may be negative in certain types of cerebrospinal syphilis and in forms of eye and blood vessel syphilis. He should furthermore know that the blood may be reinfected from time to time by the Wassermann producing substances in the spinal fluid and in the eye. An infection partially suppressed or confined to a limited region not in direct contact with the general blood stream may give a negative reaction. A serologic laboratory is, therefore, an absolute necessity for diagnosis, prognosis and for the control of treatment. The serologist should be capable of examining spinal fluids as well as blood and be familiar with the method of cell counting, the globulin reaction, and the colloidal gold test; a special research department for advanced workers should also

be maintained. A museum in connection with the clinic should also be developed which should include a large collection of histologic specimens as well as gross pathologic ones, the latter enabling the teachers to demonstrate to students the bone lesions of syphilis as well as the visceral lesions, including those of the central nervous system; brains showing gross lesions like gummas, aneurysms, hemorrhages and vessel changes can gradually be accumulated from the various hospitals where necropsy material is available. Models, drawings, photographs and lantern slides should also be at the disposition of the teachers in this department.

For conducting such a department an infirmary is necessary whether in connection with the dispensary or an accessible ward in a hospital where lumbar puncture and intraspinal therapy can be carried out. Special records should be kept of the treatment and serologic results, urine examinations, the heart, the eye, and neurologic findings.

Since syphilis in its inception is preeminently a dermatologic infection, it most frequently comes to the dermatologist for diagnosis. Dermatology and syphilis should be under one head; but when a large clinic is developed, conducted as separate departments, the cases first being seen in the branch devoted to skin and then referred to the division for syphilis, where they are treated and investigated by specially trained men as to involvement of the eye, ear, nervous system, heart or viscera. It is best to centralize as much as possible the treatment, as in this way it can be systematically carried out and without conflict. The various departments should, however, cooperate so that patients can be referred for special eye, heart, or neurologic examination if such specialists are not directly connected with the department of syphilis.

3. *The Necessity of a Follow-Up System in Connection with a Syphilis Clinic.*—The large number of cases of syphilis of the nervous system, the cardiovascular system, the viscera, etc., attest to the fact that the disease has been inadequately treated in the early stage. Full instructions should be given patients as to the possibilities if the treatment is neglected and delinquents visited by a social worker. The difficulty is that a large percentage of patients give fictitious addresses and it is impossible to locate them. At the Vanderbilt Clinic patients with syphilis are first seen in the skin department and then transferred to the syphilis side, where blood for Wassermanns is taken and various clinical investigations are carried out. Patients with demonstrable manifestations or a positive Wassermann reaction are treated on the day of the first visit with mercury, or if contagious lesions are present, with salvarsan; others await the result of various examinations. Every patient receives an ophthalmoscopic examination, a heart examination,

urinalysis, neurologic examination and before, during or after treatment, a lumbar puncture. Treatment is carried out systematically in courses — salvarsan and mercury at weekly or shorter intervals with mixed treatment or iodid of potassium, as indicated, and is controlled by the Wassermann reaction. The patient is discharged as cured if his Wassermann is negative for a year and remains so after a provocative injection of salvarsan, and his spinal fluid is negative. Where involvement of the central nervous system is present intraspinal medication is administered.

SYPHILIS CLINIC

An ideal syphilis clinic should be a center of instruction for the undergraduate and the postgraduate student where accurate knowledge may be acquired and disseminated. An endeavor is made to give to the student a comprehensive clinical and pathologic picture of the disease by the demonstration of cases, models, photographs, lantern slides and from the histologic and gross pathologic material, aided by the special laboratory methods which are available. At the present time the teaching of syphilis in the College of Physicians and Surgeons is under the department of dermatology, and as the time assigned to these specialties is limited it is difficult or impossible to cover the subject of syphilis as thoroughly as is desirable. The following is a brief outline of the method of teaching which is at present employed:

The subject is introduced by a short history of the disease and by a discussion of the contributions of leading investigators who have developed our modern knowledge of it. The far-reaching importance of the disease to the individual, the family and to the state is emphasized. The methods by which the infection is conveyed and the illogical attitude of the community regarding the disease is discussed and an endeavor made to educate the profession and the public as to the necessity for better facilities in our hospitals and dispensaries for its treatment. A sketch of the general pathology and the result which may follow in unrecognized or inadequately treated cases is dwelt on and an endeavor made by lectures, demonstration of cases, models, photographs and lantern slides to impress the student with the clinical manifestations of the genital and extragenital sores. Methods of detecting the invading organism in the early lesions by the dark field microscope and staining methods are shown and the imperative importance of early diagnosis and treatment insisted on. If the teacher of syphilis has at his command a sufficiently large dermatologic clinic he is in a position to illustrate the differential diagnosis of syphilitic rashes and those which resemble it in the early as well as in the late stages of the infection. One cannot become an expert diagnostician of early skin syphilis without becoming familiar with drug rashes, pityriasis

rosea, lichen planus, the tuberculids and many generalized eruptions which simulate it. A knowledge of the skin and subcutaneous manifestations of tuberculosis, blastomycosis, sporotrichosis as well as all malignant growths is essential to the diagnostician of late external syphilis. After several lectures covering the initial lesion and the early and late skin manifestations the significance of a positive Wassermann reaction in the latent period of the disease is dwelt on and its relations to the involvement of the central nervous system, cardiovascular system and the visceral manifestations of the infection. Without infringing on the department of neurology the question of syphilis of the central nervous system is discussed at some length and the various special diagnostic methods are described and illustrated.

The relation of nervous system involvement in early syphilis to the subsequent development of tabes, paresis and other forms of cerebrospinal syphilis is frequently emphasized so that the student may always have in mind when treating an early case of syphilis the possibility of invasion of the spinal fluid. He must know just what this invasion signifies and receive proper instruction as to the most efficient means of combating it. Involvement of the central nervous system which is overlooked by the physician and later is followed by tabes or paresis is not creditable to our profession; neither is an optic atrophy from an early optic neuritis or basilar meningitis which might have been recognized and cured. The same reasoning applies to aneurysms which might have been foreseen if an aortitis had been suspected. We cannot progress in our therapeutic endeavors if we look to the neurologists to develop a method of cure after harm has been done in the central nervous system; or to the ophthalmologist to devise a cure of optic atrophy when blindness is impending; neither to the internist to show us how to cure aneurysm which is revealed by gross physical signs. Progress cannot be accomplished by any of these practitioners by deriding or belittling the results accomplished by syphilographers who see the early beginnings of the serious affections enumerated; neither can progress be made by jealousies or disputes as to whom syphilis belongs in its various stages or to whose department these various patients should be referred. Pathologic changes are the same in all stages of syphilis and the man who masters the subject from the initial lesion to paresis will obtain the confidence of the patient and render him the service to which he is entitled.

A syphilographer can obtain valuable aid in diagnosis from the neurologist, the ophthalmologist, the laryngologist or the internist, and all of these departments in a medical school should cooperate. The victim of syphilis, however, will fare much better if he is treated in a central department where the therapeutic methods are uniform and as far as possible standardized.

Syphilis and Marriage.—The student is instructed in the question of syphilis and marriage and the rules formulated as far as possible which should guide the practitioner in deciding when an individual infected with syphilis should marry. The student is told that early efficient treatment followed by a negative Wassermann reaction which remains so for at least a year, which in other words conforms to the criteria established for the cure of syphilis, is a safer rule to follow than the old one of awaiting an attenuation of the virus three to five years after infection. During the past few years in which intensive treatment has been employed and controlled by our exact laboratory methods patients have married eighteen months after infection and have borne children free from any clinical or serologic evidence of the disease. On the contrary, under the old rules regulating marriage in syphilitics, congenital syphilis has been seen in the offspring of individuals who married eight or ten years after infection where the Wassermann reaction in the father or mother was positive. It would seem necessary, therefore, to completely revise our rules as to the question of marriage in syphilitic individuals.

In my own clinic we see, perhaps, fewer cases of congenital syphilis in infants and young children than other cases of the disease. The student, however, is presumably thoroughly instructed in the clinical phases of congenital syphilis in the department of pediatrics, but we endeavor to demonstrate such cases when the opportunity offers. One or two lectures are devoted to a consideration of the clinical and pathologic manifestations of congenital syphilis and also the proper methods of treating women infected with syphilis during pregnancy. After the student has been given as far as practicable a comprehensive clinical and pathologic picture of the disease with the general diagnostic methods employed, he is instructed in the exact use of the therapeutic agents. We have at the Vanderbilt Clinic a department for the administration of mercury and salvarsan and the student has ample opportunity to observe the methods in which these agents are given, the by-effects which follow each and the clinical and serologic results obtained from their administration.

A clinic for the treatment and teaching of syphilis based on the lines indicated, should have sufficient endowment to enable it to carry out its plans and at the same time to investigate problems which present themselves from time to time. The nature of the disease and the views of the public regarding its methods of transmission have heretofore seriously handicapped such clinics in obtaining contributions from philanthropic individuals. The enlightenment of the public leading to broader and more liberal views will doubtless enable us to establish on a firmer foundation teaching and research departments in the medical colleges throughout the country which will be centers of

instruction for practitioners as well as students. The development of the department of dermatology and syphilology at the College of Physicians and Surgeons was rendered possible through the cooperation of the University in furnishing us with enlarged clinical space at the Vanderbilt Clinic, by the generous contributions of the late Dr. McMurtry, and by several large donations from patients and personal friends of the head of the department.

The work of the department as shown in the various annual reports could not have been carried out, however, had it not been for the efficient organizing ability of the chief of clinic, Dr. MacKee, aided by the cordial help of all of the members of the staff, who have made many personal sacrifices of their time and money to insure the success of the department.

In the annual report of the clinic from May, 1916, to May, 1917, the new patients numbered 2,895, of whom 991, or 34 per cent., were treated for syphilis. There were seen 55 cases of initial lesion without secondary manifestations; 39 with secondaries developed; 138 cases of secondary syphilis; 613 cases of latent and tertiary syphilis; 66 cases of syphilis of the central nervous system and 80 cases of congenital syphilis; 1,893 Wassermann examinations were made; 3,229 intravenous injections of salvarsan were administered; 6,706 intramuscular injections of mercury and 245 intraspinal treatments were given. In addition, there were 224 lumbar punctures for diagnosis. The demands on our facilities are now so great with the increasing number of syphilitic patients who require long-continued treatment that we must either acquire additional space or seriously curtail our work.

TEACHING OF SYPHILIS IN SCHOOL AND HOSPITAL*

C. MORTON SMITH, M.D.
BOSTON

Medical teaching consists in disseminating our accumulated knowledge in the broadest and most effective manner.

One by one the problems of etiology and treatment are being solved. Diseases whose cause was unknown, and treatment therefore largely empiric, are being placed on a definite scientific basis. In no field of medicine have more brilliant and beneficial results been accomplished during the past fifteen years than in our definite knowledge of syphilis. The successful inoculation of an ape, the discovery of the *Spirochaeta pallida,* the application of the complement fixation and the invention of salvarsan — these discoveries led to others. We no longer think of tabes and paresis as parasyphilitic or metasyphilitic manifestations, but as an active syphilis of the central nervous system since Noguchi demonstrated *Spirochaeta pallida* in the cerebral cortex. Aortitis, aneurysm and symmetrical synovitis of the knees usually mean an antecedent syphilis.

These changes in our definite knowledge of the disease have come too rapidly to be easily taken up by some of the older graduates who are not in touch with medical centers, and who tell us that they "see no syphilis" in their medical work. Therefore, this teaching must not be confined to undergraduates; postgraduate instruction should be encouraged in every way, also the use of extension courses. Lectures and clinics on syphilis should be given in various cities under the auspices of a medical school, the course to include all that is new and practical in diagnosis and treatment. The importance of looking for *Spirochaeta pallida* in all suspicious lesions, either with a dark field illuminator or by the use of stained smears, must constantly be taught.

It is hard to impress medical men who were trained to wait for secondary symptoms before making a positive diagnosis of syphilis with the fact that such a course is no longer necessary, whereas the immense advantage to the patient and the community of intensive treatment of primary syphilis is commonly accepted.

The public should be deeply interested in the early cases, for they each represent a focus of possible infection. Late lesions may threaten or claim the life of the victim, but the health and happiness of others is not endangered.

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* Read before the Section on Dermatology at the Sixty-Eighth Annual Session of the American Medical Association, New York, June, 1917.

For a few hundred years the knowledge of syphilis was based on accumulated observations of clinicians, and the teaching was done as a part of general medicine. With the development of specialists, both genito-urinary surgeons and dermatologists claimed the care and teaching of syphilis as a natural part of their work. That both failed fully to appreciate their opportunities and responsibilities, is shown in various ways.

As early as 1911 a committee was appointed by this Association to work for better and more uniform teaching of syphilis in our medical schools. There is a prejudice on the part of certain medical men against establishing a special department for teaching syphilis, fearing a similar request in regard to other diseases.

In many departments, methods of the past have required a change to meet new conditions; and no one desires to return to inadequate treatment of syphilis based on a clinical diagnosis. We have better methods now and they should be used. Formerly it was the best that could be done.

Syphilis, however, is more than a genito-urinary or a dermatologic manifestation, and should be treated and taught in a department of its own. Fournier said, long ago, that the care of a case of syphilis belonged to one man; but that in the case conditions might arise in which the assistance of any of the other specialists should be sought temporarily. The same is true of its teaching. It is granted that one man has neither the time nor the ability to teach all the manifestations of the disease; but he can arrange and supervise the teaching, making it more complete and comprehensive and giving it a proper value in relation to other branches of medicine and surgery. This can be accomplished best through coordination and cooperation with other teachers and departments.

It has been said that to know syphilis is to know medicine, as every organ and tissue of the body may be invaded at some time during the course of the disease. Therefore the syphilologist must be specially trained, not only in syphilis, but in the dermatoses and exanthems; he must also be familiar with bone and visceral changes, as shown by the Roentgen ray. If not a serologist, he must be able to interpret the findings of others, and to give them a proper value in conjunction with the signs, symptoms and history of the disease.

In the bony framework close resemblances exist between syphilis, rickets and osteomyelitis. Syphilis not only imitates other diseases, but sometimes simulates itself; for instance, the striking likeness of an early gumma and a primary lesion of the lip or genitals.

When I was a student Harvard required no work in syphilis. A certain number of didactic and clinical lectures were given, attendance at which was entirely voluntary. Later, six section exercises of an hour and a half each were added, and an examination was required.

At the present time instruction is given by the department of syphilology, and consists of clinical and didactic lectures given in the third year. In addition, students in sections attend twelve three-hour exercises in the department for syphilis at the Massachusetts General Hospital. Here the men see all the instructive material of the clinic, and are assigned cases to work up. They take the history, make a physical examination and a dark field if necessary, take blood for a Wassermann and demonstrate the patient before the instructor and the men of the section. Students have an opportunity to assist with salvarsan administration. Ward patients also are used in teaching.

Arrangements have been made for lectures or short talks on syphilis of the eye, ear, etc., to be given by the respective departments early in the course. It is hoped that arrangements may be made soon to give the second class some clinical lectures.

Fourth year syphilis consists of quarter course electives, and two three-hour exercises are given, at one of which men not necessarily connected with the school speak on the problems that syphilis presents to them in their work. For instance, a medical director of a life insurance company speaks on syphilis and life insurance; the medical examiner (coroner's physician) on syphilis and sudden death; a member of the industrial accident board on syphilis and workmen's compensation. The other exercise is given at the hospital, and men from various departments speak on syphilis as they see it in their special fields of medicine.

The students receive a certain amount of instruction on social questions from our social worker, in the form of short talks to the class; and during their section work they are shown how various family problems are solved.

There are many social questions in which the state is interested, as congenital or acquired syphilis in the state minor wards and the girls' parole department. Especially the commission for the blind is interested in cases of interestitial keratitis. Syphilis often complicates the placing out of children by the state or by private agencies.

All this properly belongs in the teaching of syphilis, but has no relation whatever with genito-urinary surgery or dermatology, and little with general medicine. However, the syphilologist is interested in all these questions.

Much has recently been written of the economic waste caused by syphilis. In an excellent paper read before this Association a year ago, Dr. Irvine[1] quoted the estimated number of syphilitics in this country to be from ten to twenty millions. He also gave interesting

1. Irvine, H. G.: Notes on the Teaching and Treatment of Syphilis, Jour. Am. Med. Assn., Dec. 30, 1916, p. 1987.

figures showing the amount of time lost from work, and the expense of this burden to the state. The actual economic loss can never be computed, for many patients are not kept in hospitals, and much is spent by private individuals in the care of dependent syphilitics. The figures that Dr. Irvine gathered from various sources show that, in many hospitals, patients with syphilis make but few visits, a large majority making only five, and many only one or two. Such inadequate treatment is of little value to the patient and no satisfaction to the physician. To overcome this, an effective follow-up system is essential; but if care is taken to show the patient at his first visit that his physical and social needs will receive prompt and energetic treatment, tempered with a human interest, the need for follow-up work with that patient is reduced to a minimum.

For the year 1916 our loss among new patients has remained the same as for the previous year, that is, 9.5 per cent. in those admitted to us directly. Our clinic has tripled in the number of clinical visits during the three years of its existence, but not in the admissions, although there has been a steady gain. During 1916 there were 1,428 new patients admitted. Of these, less than 4 per cent. required "follow-up" work. With cases transferred to us from other departments, it was necessary in 6 per cent. Only 2 per cent. of our patients stopped treatment before receiving two months of mercury following their salvarsan. This does not include the cases whose subsequent treatment is arranged for elsewhere (New York, Chicago, Philadelphia, etc.).

To ascertain our knowledge of cases a year old or more, figures for April, 1916, were reviewed. In that month there were 108 new patients admitted, and the present status of all of these is known to our department. There were 603 old patients treated in that month, 35 per cent. of whom came as new patients at least six months before that.

Here, we believe, is proof of the power of the personal touch. There is hardly a patient in the department who cannot be called by name by some member of the staff.

We hold the patient responsible for bringing under treatment, whenever possible, the donor or recipients.

Teaching syphilis in a separate department has been criticized on the ground that students see only syphilis, and have none of the dermatoses alongside for comparison. This is true only to a certain extent, for cases of pityriasis rosea, lichen planus, psoriasis, scabies, etc., cannot fail to be admitted to the syphilis department occasionally; but the establishment of reciprocal relations between the skin and syphilis departments is the foundation on which the ideal teaching structure can be raised. We notify each other whenever typical or

unusual cases present themselves, and borrow and lend cases for clinical lectures. The same is true of other departments to a slightly less extent.

Dermatology and syphilis occupy adjoining quarters at the hospital, and during the coming year blocks of students will be sent to the two departments. In this way students will get their clinical instruction in both branches at the same time.

The teaching of syphilis should include an interest in all the activities in the subject that are being carried out in all departments, from the prenatal clinic to the necropsy laboratory.

A Wassermann test is taken on all applicants at the Boston Lying-In Hospital, and cases showing a positive result are sent to our clinic, whenever possible, for observation and treatment. This enables us to see many of the babies, and, when necessary, treatment can be given without delay.

Cases of syphilitic eye conditions are sent to us from the Eye and Ear Infirmary for constitutional treatment. This arrangement affords abundant opportunity to study syphilis of the eye, both acquired and congenital, and illustrates well the cooperation already mentioned. To the ophthalmologist these cases are interesting as a local condition, but to the syphilographer they are syphilitics, and often show other manifestations or stigmata of the disease, as hutchinsonian teeth, symmetrical synovitis of the knees, periosteal thickenings, changes in the lung or pleura, etc. Such cases require medical supervision for years, and the syphilographer is the natural one to assume this responsibility and should be best qualified to teach these conditions. Local manifestations may come and go, but there is no ending to the syphilographer's interest in these unfortunates.

A department of syphilology must have beds in the ward, where cases not suited for an ambulatorium may be studied and treated. There is an opportunity for a certain number of students to act as hospital interns and receive advance training. They do lumbar punctures and study the spinal fluid, renal functions, etc.

Cases of visceral syphilis — heart, lungs, liver, etc. — may be cared for, as the department of syphilology must have a skilled internist on its staff.

Laboratory facilities for studying biopsies and carrying out research work must be provided.

There must be in the department microscopic sections of primary lesions and the syphilids; also photomicrographs of the histopathology, as well as photographs showing the gross pathologic lesions. These must be available constantly for reference.

Syphilis should be taught and treated in a department of its own, this department to be equipped with a laboratory, dark field and

arrangements for serologic examinations. There must be plenty of assistants under the direction of a trained syphilologist, the staff and affiliations to include internists, pediatrician, eye, ear, throat and other specialists.

Financial arrangements must be made, thereby insuring emergency salvarsan, where needed, and beds for infectious cases must be available.

A social service worker in the clinic and an effective "follow-up" system are indispensable.

With such equipment, it should be possible for the medical school to graduate men amply qualified to wage an effective, systematic warfare on syphilis in the community.

THE TEACHING OF SYPHILIS IN UNDERGRADUATE SCHOOLS *

WALTER JAMES HEIMANN, M.D.
Assistant Professor of Dermatology, New York Post-Graduate Medical School; Pathologist, Department of Dermatology, Vanderbilt Clinic; Adjunct Dermatologist, Mount Sinai and German Hospitals; Chief of Clinic, New York Skin and Cancer Hospital
NEW YORK

Until twenty years ago, barring a certain good natured recognition of the fact that syphilis could cause arteriosclerosis, and was responsible for the so-called parasyphilitic and metasyphilitic disturbances, the disease itself, in its larger aspects, was neglected, except by very few. Since its earlier manifestations were chiefly cutaneous, and its later ones largely so, the malady was conceded to the province of dermatology. The urologists alone challenged this, and purely because the primary lesion so often occurred on the genitalia. Female primary syphilis stayed unclaimed because the gynecologist, unlike the urologist, felt no particular proprietary rights in the condition; and the result was that syphilis in women was even more neglected than in men.

Urology, however, was once closer to dermatology than it is today, for today urology has become a surgical and dermatology has remained a medical specialty. Thus, the only possible reason for the urologist still to regard syphilis as within his field is because of an accident of localization. Erysipelas of the scrotum or lichen planus of the penis might just as reasonably be regarded as genito-urinary diseases. In recent years syphilis has become one of the few human afflictions about which definite knowledge exists, and for which something definite can be done. Thus the disease is no longer one of the waifs of medicine, and no specialty now exists that does not claim chief guardianship. In the meantime, however, the dermatologists, because of their almost undisputed study of the subject, have become the world's great syphilographers, as can be illustrated by the names of Fournier, Finger, Neisser, Hoffmann and Herxheimer. In the special field of laboratory work there have been equally great if not greater contributions to the study of syphilis, but from the standpoint of the subject clinically it may be reiterated that it has been practically only the dermatologists who have become great syphilographers.

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Unfortunately, in the past, the lines of cleavage in specialties have formed themselves largely with reference to practical considerations. When syphilis was counted a cutaneous illness for which pills were prescribed or inunctions given by an orderly, it was not considered interesting. Now that it is better understood, it has acquired wider fascination. The surgeon considers it surgical because inserting a needle into a vein may be apotheosized into an operation. The neurologist considers it neurologic because a given proportion of syphilitics develop tabes, paresis, or meningitis. The urologist clings to his earlier attitude with renewed ardor because the portal of entry of the disease happens to be on the penis. The laryngologist might equally consider it a throat disease because now and then a chancre occurs on the tonsil. This confusion is reflected in our medical schools. The departments of dermatology, urology, neurology and general medicine all claim syphilis. The question has become a matter of medical school politics, to put it frankly, and in the meantime two groups of people suffer — the students who are entitled to be taught syphilis properly, and the syphilitics who are entitled to have properly trained physicians at their disposal. In the last analysis, however, it is the community that is sacrificed while this petty struggle is being waged, and every individual who obstructs the efficient teaching of medicine in any of its branches is in spirit violating the hippocratic oath.

Syphilis should be taught by one whose natural and acquired endowments are such as to render him the best man available for the task. He must have at his disposal an adequate staff of assistants, technicians and nurses, and properly conducted clinics, wards and laboratories. Sufficient time must be allotted to this subject by the medical school so that the student may be able to cover everything of importance pertaining to syphilis. This does not imply that, in order to win his degree, the student must be an accomplished syphilographer, but the community may expect of him an intelligent grasp of the disease and a wholesome insight into his own limitations.

THE PERSONNEL OF THE TEACHING DEPARTMENT

The teaching staff should consist of a chief, a man second in responsibility, and a group of assistants. The head would be the professor, and he should be a member of the faculty. The title of the second man is less important than that he possess capability for his work. His appointment should be made with as much care and discrimination as that of the professor. Professorial qualifications obviously should be high, the first requisite being general culture, an understanding of biology, and at least a reading knowledge of German and French. The qualifications for entrance to medical schools as students have recently reached a high level. No lower standards should be

tolerated in the teaching staff. Without wishing to read too much cultural significance into the baccalaureate degree, it at least represents a minimum of work done, lacking which an individual is considered unprepared to pursue an intellectual career. This necessary minimum, whether self-acquired or not, and whether ornamented with a college degree or not, should be expected in professors or potential professors.

A professor in a medical school should himself have been graduated from an exacting institution, and have served as intern in a hospital of recognized standing. He should have more than a crude conception of internal medicine, gross and microscopic pathology, bacteriology and serology. This holds true in all specialties, but above all in syphilology, which plays so gigantic a rôle in internal medicine. Special professional training in syphilis includes a mastery of dermatology, without which one cannot know the cutaneous specific manifestations, and a thorough understanding of the internal, central nerve, special nerve and general clinical aspects of the disease. This is imperative, but it does not mean that the professor of syphilis should be a master in all of these departments, an obvious impossibility. He must, however, be more than a tyro. Should this be beyond his scope the faculty that gives him his chair is more deeply implicated in the wrong than is their appointee.

Above all, the professor should be able to teach. Otherwise, he merely adorns a rostrum at regular intervals and tires his pupils with bad pedagogy. Thus, they allow their thoughts to dwell on a signal that will end their temporary bondage. It is possible to be a great syphilographer and a poor teacher, and such an individual is not of professorial caliber. There are many indications that medical schools are beginning to realize this, and they should demand that the occupant of a professorial chair love teaching and know how to teach. What has been said of the head of the department applies equally to his first lieutenant, whose academic inferiority to his chief should be only such as can be explained by relative youth and inexperience. The fundamental qualification of general, general medical and special training should be identical in both. This is undebatable. The second in the department may at any time be called on to substitute for or replace the head, and must approximate the latter's standards.

Lower instructors, demonstrators and assistants, their number being determined by the size of the department, should be well grounded in their subject in its general and special aspects. Less is to be demanded of this element of the teaching staff because they are beginners, but such work as is assigned to them should be accomplished in an excellent manner, and if it is not they should be dismissed. The teachers in medical schools render a public service, and those who are inefficient,

or who place their teaching second to any of their other activities, should not be tolerated.

Organization of the Department of Syphilology: Its Scope and Pedagogic Methods

For reasons that will be discussed below, syphilis in its main aspects should be taught in the department of dermatology, which should control an outpatient clinic and have access to hospital wards. In addition, there should be such laboratories and rooms as are needed for the examination of smears, tissue, the performance of serological tests, and the administration of salvarsan. There should be waiting, dressing, examining and recovery rooms in which the patients may be ministered to with just as rigorous human consideration as scientific excellence. The students, under the supervision of instructors, should partake in the active work of the clinic, not so much with the idea of becoming experts as with that of seeing at close range and for future reference what is proper and necessary in the care of syphilitics.

A sufficient number of beds should be at the disposal of the department to care for patients who need the kind of attention, study, or treatment that cannot be supplied in the dispensary. These beds are for cases requiring careful analysis, for those which need the diagnostic or therapeutic lumbar puncture, for patients who suffer reactions after salvarsan, for cases of malignant syphilis, and for the detention of patients with marked lesions and disturbances, so that the process of involution after treatment may be observed by the student.

Both the clinics and wards should be conducted in such a manner that cooperation exists with other departments, especially the departments for diseases of the nerves, eye, ear, rhinolaryngology, internal medicine, pathology and bacteriology. This is essential in order that questions of diagnosis in these fields may be adequately considered. Every case of syphilis, particularly with reference to didactic as well as clinical needs, should be thoroughly studied in all its relations, and this is possible only when there is harmony among the departments and a desire among their heads to procure the best pedagogic result. Starting with this personnel, equipment and clinical material, the problem of working out an efficient scheme of teaching, though complex, should not be hard to accomplish. The object of all instruction should be to give the pupil a comprehensive understanding of the disease and a practical knowledge of it that will enable him either to treat patients properly, or to refer them to colleagues who may do so. Thus, it is necessary to cover the clinical and laboratory aspects of the malady from the primary lesion to the central nervous and visceral manifestations broadly, while other departments take up their special part of the instruction in greater detail.

The earlier signs of syphilis and many of the later ones are most marked on the skin and visible mucous membranes. Early in the course of the disease, however, all sorts of systemic disturbances occur. The latter, subject to the strain of the infecting organism and the peculiarities of the host, determine the peculiarities of the course of the disease in its systemic aspects. Thus, syphilis enters all fields of medicine. So far as the welfare of the patient is concerned, the most important period of the disease is the earliest one, when most can be accomplished by therapy. It is the syphilographer who, in nearly all modern hospitals, clinics and teaching institutions, treats all of the cases in a central department. In order to recognize and understand early syphilis he must be a dermatologist. This implies a great deal more than imagining that a rash in a patient with a positive Wassermann reaction is a syphiloderm, and that one with a negative Wassermann reaction is not.

The student must be taught the cutaneous manifestations of the disease by a department head who knows them and can differentiate them from all other similar dermatoses. It is not enough, though, for the teacher to know only the cutaneous details. He must also have a clear understanding of the nervous, ocular, auditory, internal, medical, surgical, pediatric, serologic and pathologic phases of the disease. Since he cannot excel in all of the specialties here included, a definite method of presenting the subject consistently and completely must be agreed on between the department of syphilology and all other departments.

It is my feeling that in view of the importance of the subject it should be begun in the third year and continued through the fourth year of medical training. In the third year the disease should be approached from three points of view, the clinical, the serologic and the pathologic. The clinical teaching is again to be subdivided into didactic lectures, case demonstrations and applied therapy. The lectures should cover the cutaneous aspects of the illness, the general biology of the spirochete and host, the broad principles of the systemic phases of the disease, congenital syphilis, the significance and the interpretation of the Wassermann and cerebrospinal fluid tests, and finally the question of therapy. The last should embrace a thorough exposition of the drugs used, their indications, contraindications, physiologic and therapeutic behavior, and toxicity, including the Herxheimer phenomenon and nitritoid reactions in salvarsan administration. The range of efficiency and limitations of the medicaments, the therapeutic results, and questions of prognosis should be duly emphasized. Lectures should be given interestingly, vividly, and with suitable illustrations by means of the stereopticon, tables, charts and patients.

The instructors should give an adequate number of clinics and demonstrations to small sections of the class showing the actual cases of

syphilis. In these clinics the diagnosis of the chancre, the early and late syphiloderms, and all nonsyphilitic dermatoses should be exhibited, so that points in differential diagnosis may be thoroughly presented. In other words, the fulcrum of dermatologic instruction should be syphilis, since syphilis is the most serious disease among those whose conspicuous phenomena are cutaneous. The students should have to administer a certain number of salvarsan and mercury injections in order to master the technic. They should also make dark field examinations and watch a stipulated number of cases clinically and therapeutically.

Relation of the Department of Syphilology to Other Departments

The head of the department of syphilography, together with the heads of the departments of internal medicine, neurology, ophthalmology, otology, pediatrics, surgery, bacteriology and pathology, should arrange a curriculum in which, after the general questions of syphilis have been discussed, its special features are taken up consistently and consecutively. Each of the departments should outline those manifestations and phenomena of the disease within its province. Obviously, diagnostic and differential diagnostic considerations merit most emphasis. The division of teaching should be based not at all on the aggrandizement of the individual department, and entirely with reference to the utmost pedagogic efficiency for the sake of the pupil and hence for the welfare of the community.

Both lectures and clinics in these departments are necessary. The pathologic studies should consist of demonstrations of gross and microscopic material. The serologic work should consist of a knowledge of the principles and technic of the Wassermann and luetin tests, instruction in their practical application remaining an affair of the department of syphilology. The fields to be covered in the other departments are perfectly clear, but it is to be especially emphasized that the surgeons and orthopedists include Roentgen-ray diagnosis of bone syphilis, and the pediatricians go deeply into the question of congenital syphilis. Here it may be urged that no instructor be allowed to express an opinion on congenital syphilis unless he has qualified sufficiently as an embryologist to know the difference between the words "congenital" and "hereditary," so that the last adjective, absurd in its present usage in connection with syphilis, may be abolished.

Necessarily, a curriculum of this sort requires time. The third and fourth years of the course should be devoted to it. During the third year a weekly lecture should be given by the head of the department, the pathologic department at the same time taking up the subject in the course in general pathology, while a cutaneous pathologist gives

a brief course in the special microscopic anatomy of the syphilides, either in connection with the department of general pathology or syphilology. During this year, too, the department of general medicine should cover its portion of the scheme. In the fourth year the practical clinics, as above outlined, are to be held. Every pupil should attend from thirty-six to forty clinics, or at the rate of one a week. The arrangement of these would depend on the size of the entire class, but no section should exceed ten members. The number of sections would vary with the size of the class and a suitable number of instructors would be needed. In addition to this, the special phases of the disease should be taken up by the special departments as outlined above.

Without harmony of point of view among the department heads as to how the teaching is to be conducted, the whole course will necessarily be a failure and a source of confusion to the student. By this is meant that one department may not express a preference for one sort of treatment or point of view, and another for another. All the heads must agree to teach along one definite line. This applies particularly to therapy. If no such agreement can be reached the treatment would perhaps better be left entirely to the department of syphilology, and not be touched on by the others at all. The same applies to the Wassermann test. There is an institution in New York in which the departments of dermatology and clinical pathology are convinced of the value of this test, the departments of urology and general pathology dissenting. The professor of pathology, who incidentally has nothing at all to do with the subject, gratuitously teaches that the Wassermann test is useless. This has caused great confusion in the nondiscriminating student mind, for the pupils do not realize that this professor of general pathology has not seen twenty cases of clinical syphilis in his life and thus is not entitled to express an opinion on the subject. Such a state of affairs ought to be forbidden by faculty legislation, but some medical schools are still loosely strung bodies, and often every one's welfare is considered except that of the student and his future patients. A similar clash is possible in case the syphilographer and neurologist disagree on questions of therapy in tabes, paresis, etc. Whatever the individual points of view held by department heads, all questions of treatment should be discussed dispassionately, for intraspinal therapy, in spite of its inherent limitations, is neither wholly bad any more than it is wholly good. The student should understand these facts and realize the advantages and disadvantages of the treatment, but he should not be forced to leave his college remembering that Dr. A advocated one type of therapy, and Dr. B another, and that each gentleman respectfully but firmly called the other a fool or charlatan, and the adversely critized method quackery.

Department of Syphilis and Skin Diseases a Major Branch of Medicine

It is strange, perhaps, to lay such stress on a single disease. One might hold that if there is a special chair for syphilis, there should also be one for tuberculosis. Perhaps there should be, and for cancer also, since cancer, tuberculosis and syphilis represent society's greatest health problems. There are probably between 10,000,000 and 20,000,000 syphilitics in the United States. Every one is acquainted with the potentialities of the disease. Assuming that only 1 per cent. of those afflicted develop tabes or paresis, there will be 150,000 people in our country with preventable central nervous maladies. These figures are probably two or three times too low. Nearly every case of aortic insufficiency and aortic aneurysm is of specific origin. Who can estimate the number so afflicted? Who has any definite conception of the number of cases of arteriosclerosis, angina pectoris, chronic nephritis, or hepatic cirrhosis due to syphilis? It is no exaggeration to state that there are probably 2,000,000, or one fiftieth of our entire population. How many miscarriages are caused by maternal syphilis, and how many congenital syphilitics are born every year? Let us assume that there are only 200,000. In a century this means 20,000,000. We know that Oriental populations double in a century, while Occidental ones scarcely increase by half this figure; and yet we regard with no concern the sacrifice of two fifths of our procreative ability. Millions of dollars are annually devoted to the study of cancer, a disease of relative old age. We spend nothing on the study and teaching of syphilis, a disease that preys on vigorous youth and strikes at man in his prime, impairing his efficiency and leading to consequences inestimably more serious than those of cancer. It is a social crime for medical schools to ignore this disease as they have been doing. Does it not merit especial attention so that its rising flood may be stemmed? And how better can it be stemmed than by adequately teaching those whose duty it will be to treat it? We all know perfectly that there is but one right time to begin treatment, and that is as nearly as possible to the moment that the initial infection is recognized. But how many members of a medical faculty, outside of the syphilographer, realize this? And how many graduates enter on their professional career knowing this and the biologic principles underlying the fact?

Syphilis Belongs in the Department of Dermatology

The department in which this instruction can best be conducted is still a matter of dispute in medical schools. Several possibilities exist. It may be taught in a subordinate branch of the department of general medicine, in the department of genito-urinary diseases, in the department of dermatology, or in a special department of syphilology. Let

us examine each method. Are there many internists who, with the vast number of conditions they see, are capable of mastering a single disease the manifestations of which are protean, and the cutaneous forms of which they would be able to differentiate from other dermatoses? In other words, may we expect the professor of internal medicine also to be an expert dermatologist? For a reply we need only call the roll of professors of internal medicine. Not a single one will say *adsum*. Urology today is a branch of surgery, but sincere urologists will lay no claim to the mastery of syphilis simply because the major proportion of primary lesions are penile. Are chancres of the tonsil, tongue and lips genito-urinary conditions too? How many men whose greater interest is focused on the cystoscope, the tuberculous kidney and the enlarged prostate have given enough attention to the subject of syphilis to teach the differentiation between chancre, cancer and gumma of the lip, or between syphilitic leukoplakia and lichen planus of the tongue, or between gumma of the calf and Bazin's disease? Let us leave the reply to their conscience.

It is fair to conclude from this that to whatever department is assigned instruction in syphilis, the teacher must be a dermatologist. Nothing will be gained by creating a separate department of syphilology if the teacher must after all be a master of cutaneous diseases. It is far better to widen the scope of the department of dermatology in a manner commensurate with its newer extent, as has already been done at the University of Michigan and Columbia University.

Reflection on the significance of the disease to the individual and the race is amply convincing that its proper instruction is a matter of first rate sociologic importance. To raise the standard of teaching to a level worthy of the malady's import, several changes in medical school organization are essential. First, the department concerned with the subject may no longer be counted one of secondary importance. Syphilis, with dermatology, must at last be considered a major medical subject. Secondly, the chair of this department must be directly represented in the faculty. This is essential so that the head of the department may be in immediate touch with the heads of other closely concerned departments, notably those of internal medicine, pathology, bacteriology and neurology. The purpose of this is to facilitate the planning of a consistent curriculum in which the various phases of the disease may be properly emphasized. Changes in the plans of teaching, modifications in methods of instruction, the incorporation of new ideas determined by progress, must be accomplished through immediate representation. This is an important element in organization. But it is obvious that the man responsible to the community for instruction in the disease at present most important to mankind must be the official and scientific equal of all other members of the faculty.

108 West Eighty-seventh Street, New York.

ABSTRACT OF DISCUSSION

ON PAPERS OF DRS. FORDYCE, SMITH AND HEIMANN

Dr. H. H. Hazen, Washington, D. C.: The number of deaths caused by syphilis is a matter of vital importance. In one year Leredde estimated that the average number in France was 25,000 to 26,000, and in going over the census reports, I figured that at least 30,000 people die in the United States from syphilis and its various effects. One thing which could well have been brought out is in regard to the teaching concerning the Wassermann reaction. We cannot read the medical journals without seeing some article in which it is said that the Wassermann was positive or the Wassermann was negative. We never hear of an examination for the particular positive signs and symptoms of syphilis. It is possible that in some laboratories a Wassermann may be reported positive when there are no lesions, and in other cases in which there are lesions it may be negative; and to rely on the Wassermann test exclusively is to my mind a positive folly. Syphilis should be taught by the person with the most information and authority; and it seems to me that the papers read by Dr. Fordyce, Dr. Smith and Dr. Heimann have pointed out the right course for us to pursue.

Dr. Harry G. Irvine, Minneapolis: There are many reasons for emphasizing this subject. Our country is about to draft and mobilize several hundred thousand men; many physicians will be called to the medical corps in this service, and it is extremely important that these medical men have a proper knowledge of venereal disease. In the armies abroad venereal diseases have presented a great problem. In the first eighteen months, the British army had more men disabled on account of these diseases than from injuries in battle. The Royal Commission on Venereal Diseases has found that the percentage of gonorrhea and syphilis has not increased in the army, but when we realize the immense increase in the army's size, an increase in percentage of total population must be noted. All of the warring countries are adopting strict regulations and campaigns of education of doctors and laymen.

Dr. Fordyce presented figures demonstrating the number of syphilitics; let me add some on the cost of syphilis. Government reports show approximately 200,000 insane in institutions. It costs about $30,000,000 to care for them. Conservative estimates allow 20 per cent. for syphilis; therefore, not less than $6,000,000 is spent yearly to care for the syphilitic insane. I made a survey last year in Minnesota. Estimates placed the number of syphilitics in asylums at something over 1,000, costing the state yearly about $160,000, and yet nothing is spent in prevention, although we know modern treatment can entirely prevent these sequelae. In a survey made in New York City, only six out of twenty-nine clinics had reasonable requirements. In a like survey in Chicago only two were acceptable. The American Social Hygiene Association made the surveys. A year ago I investigated a number of syphilis clinics. Out of ten Class A colleges from Minneapolis east, in not over 50 per cent. was syphilis being taught or treated in a modern manner. These are some of the reasons why this subject merits our attention. I believe Dr. Fordyce has outlined an almost ideal clinic, and I know that an earnest attempt is made to live up to it.

A point made by Dr. Heimann should be emphasized. The head of this department must have a place on the executive faculty. In many schools a few men perform the administrative functions, and unless this department is represented there is little chance that syphilis will have its rightful place in the curriculum.

Dr. Smith made two very important points: the importance of personal contact between patient and physician, and of social service in this department. Many clinicians devote entirely too little time to these matters. New patients are quickly dismissed without being adequately informed as to their condition. Many schools are without social service in this clinic, and it is a foregone conclusion

that patients cannot be retained. I believe it is just as important for the student to see syphilis treated correctly in our clinics as it is that he be correctly taught in his lectures. One can almost say that syphilis is a preventable disease; at least, tabes, paresis, aortitis and various other late manifestations are preventable. The nimbers of these cases demonstrates that, in general, syphilis has not been well treated, and one great reason for the poor treatment has been the poor teaching. Medical schools should not be allowed to dodge their responsibility in this matter, nor should we ourselves dodge our responsibility in making the school what it should be.

DR. A. RAVOGLI, Cincinnati: I might say what my experience is: I have tried to do my best to teach syphilis in Cincinnati University. I must point out, however, that I have been hampered in my work, first, by the general public; second, by members of the faculty; third, by the patients themselves; and fourth, by the students.

The general public does not want to hear that syphilis exists. In many of the hospitals when patients come with a hard chancre, the beginning of the bubo, they are turned out. Fortunately in our City Hospital they are admitted into the department of dermatology and syphilology. The patient cannot, however, receive salvarsan unless he has the $4.50 or the $5 to pay for the medicine, and in a great many cases when it is strictly necessary, he is turned out to go to work for a few days to earn the $5 for his dose of salvarsan, with danger for himself and for others. After a time, when syphilis is in the form of an aneurysm or paralysis or tabes, then "it must be treated in the hospital." These patients could have been treated successfully in the beginning, which would have avoided the resulting trouble.

Second, I said the members of the faculty. The individual comes, say, with disease of the eye—iritis; he is referred to the department of the eye, and nothing is said about syphilis. I cannot forget the case of a man with typhoid fever—nothing else but typhoid fever—who finally had a maculopapular syphilid, the hard chancre yet existing. He had been treated for typhoid fever. Yet many members of the faculty regret that they have to turn out those cases, which they feel do not belong to the dermatologists, but rather to the neurologists, or to other specialties.

As to the students, they want to see operations. "Dr. So-and-So is operating"; and when it comes to a clinical demonstration of dermatology, it is hard to get the students into the department. They feel that they know everything; they see salvarsan do a great deal of good; they think they can give intravenous injections, and usually go outside of the vein, producing necrosis. They prefer the patient to have pills, and the patient is satisfied; he does not want to show the members of his family that he is rubbing mercury or getting strong treatment. What concerns the patients? When a patient has received injections of salvarsan and some treatment with mercury, he goes to a dispensary a few times and then thinks he is well and quits treatment, as all the recommendations are considered troublesome precautions. So, I say our work is greatly hampered, and when we will have educated thoroughly the general public, and when we have the profession more interested, when we have educated our students and our patients in the importance and on the disastrous consequences of syphilis we shall have accomplished much.

DR. FRANK EDWARD SIMPSON, Chicago: Inasmuch as the discussion is on the teaching of syphilis, I will draw a little diagram which I have devised and used for years to exhibit the general course which syphilis takes. It must be remembered, of course, that no diagram can actually represent the course of such a bizarre disease as syphilis. As an aid, however, in obtaining a bird's-eye view of the disease I have found it helpful to students. The period from infection to the chancre (I) is represented by a straight line. The duration of this period (primary incubation) is about three weeks, with limits of ten to seventy days. Following the appearance of the chancre (and of course

before its appearance) syphilis spreads along two routes—the lymph and blood channels—represented by the two diverging lines (I to II). The duration of this period (secondary incubation) is about six weeks with limits of twenty-four to 204 days. Traveling by way of the lymph channel (the upper diverging line) the spirochetes produce the bubo, generalized lymph-adenopathy and sore throat. Infecting the blood (the lower diverging lines) the Wassermann reaction appears and anemia occurs.

For convenience, rheumatoid pains, malaise and fever are set down on this line also. The secondary eruptions (II) now appear. Generally speaking, these eruptions are widely spread, involving the skin from the crown to the soles. The so-called secondary stage lasts perhaps a year and has no sharp and definite ending. During this period various structures may be invaded, as noted on the converging lines (II to "Latency with reminders"). The hair, nails, eyes and ears, etc., may show the results of invasion by the disease. Syphilis, however, becomes "diluted with time," and sooner or later a latent period (with reminders) ensues. This is shown by the break in the converging lines. A tertiary stage (III) may develop at an indefinite period after this. It is characterized chiefly by gummas, which may appear in the skin or viscera. Tertiary

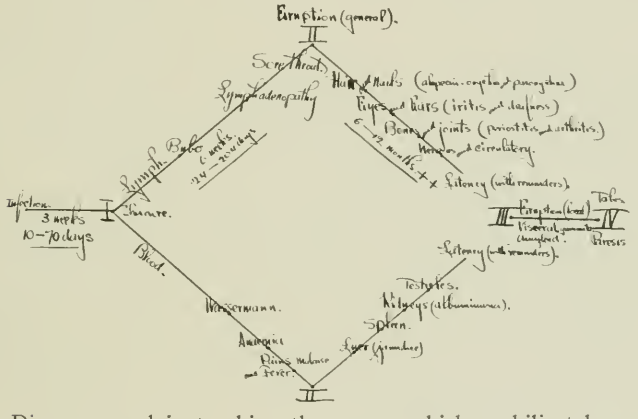

Diagram used in teaching the course which syphilis takes.

eruptions are localized, as a rule, contrasting in this respect with the secondary eruptions, which are generalized. Quaternary syphilis (IV) may appear later consisting mainly of tabes and paresis.

The experienced teacher will detect certain faults in this diagram, of which I am fully aware. I have found, however, that it was important not to make it too complete and hence too complicated.

Dr. Thomas W. Murrell, Richmond, Va.: In Richmond we have an amalgamation of two schools. Dr. Corlett read a paper there last summer and I appeared before our amalgamation committee and urged the appointment of a committee to handle this subject. Dr. Fordyce was made chairman and I was made second to him. I was fortunate enough to get the right professor appointed. The plan seemed ideal and we were very enthusiastic. I speak of a small college.

These men we work with are kind, educated gentlemen of the profession, but they ignore very casually our claims. It seems the screws must be put on them in some way, and if we could get compulsory laws passed, which must be obeyed, it would be a great step forward.

Dr. Jay Frank Schamberg, Philadelphia: The central point around which the question of the teaching of syphilis revolves is the matter of the choice of the professor of syphilology. I am quite in accord with Dr. Fordyce when he says that every institution must decide this for itself. The man who is

best qualified by scientific attainment, teaching ability and interest in the subject, should be the one to be chosen. The acquaintanceship of the dermatologist with syphilis is such that the choice will usually fall on the dermatologist of the institution. This need not of necessity be so, however; wisdom will dictate that the selection should be guided by the various qualifications referred to. I believe with Dr. Smith that the professor of syphilology should be the guiding and controlling head of the department, but that he should ask certain other department heads to cooperate with him in teaching. No man can possibly be expert in ocular syphilis in all its manifestations; neurosyphilis in all its manifestations, and surgical syphilis in all its manifestations, etc. He must, therefore, call to his aid others who specialize in these particular branches.

We are just beginning to recognize the importance of syphilis. Metchnikoff has truly said that syphilis is one of the largest factors in the mortality of the human race, but it is a hidden factor; its prevalence is not shown on death certificates or in census reports.

There are certain points which might be emphasized in the clinical teaching. I think we are in error if we say to patients and to students that children born of diseased parents, in apparently good health, and with a negative Wassermann, are necessarily free of the disease. I think that is unfortunate. I believe it is impossible for any of us to say that an infant born of syphilitic parents is free of infection. I have seen children in splendid physical condition, with negative Wassermann during the first months of life, who later developed positive Wassermann reactions and exhibited persistent anemia and constitutional inferiority which yielded to specific medication. The varying methods of technic utilized by different serologists and the antigens they use are prone to give variant results. I think there should be some standardization of the Wassermann technic adopted by serologists.

I believe that the chief *raison d'être* for the existence of professorships of syphilis in medical schools, is to secure a continuity of teaching policy and a continuity of treatment for the patients in the associated hospitals. As stated by Dr. Heimann and others, there is in many medical schools absolute therapeutic anarchy on the subject of syphilis. This is positively demoralizing to medical teaching. The vast majority of syphilitic patients are undertreated. This is due, first, to the indifference of patients, and second, to the expense. Indifference can be in large part obviated by education, and the expense by a reduction of the cost of salvarsan.

At the Polyclinic Hospital in Philadelphia at present we are giving arsenobenzol injections free to any who apply for them. I have arranged with the board of trustees to inaugurate shortly, night clinics for the free administration of arsenobenzol, so that many of those working in the day may receive their treatment at night and resume work in the morning. There is no reason why the various states and municipalities should not be called on to furnish drugs of such vital importance to the public health. Furthermore, the state must provide adequate ward facilities for the treatment of syphilis in its early stages; this is the period when syphilis is most dangerous to the community and the period when we can accomplish most through treatment. Such organizations as ours must bring influence to bear on the public authorities to provide proper hospital care for early cases of syphilis. The public in Anglo-Saxon countries has been trained to shut its eyes to the official recognition of diseases of venereal origin. In the Johns Hopkins Hospital a syphilis clinic has been created with a definite annual endowment from a wealthy man in this country. The importance of the adequate treatment of syphilis is so great that any practical steps which can be taken by the public to lessen the ravages of this disease must be taken.

DR. HAROLD N. COLE, Cleveland: What Dr. Schamberg has said about the expense of treatment of syphilis is of importance. Family physicians and general practitioners, more than specialists, I think, get hold of a man and charge

him enormous prices for salvarsan, and get all the money he has; and after that we find him at our free clinics.

As to the education of the public, we must start by educating the faculties in our medical colleges as much as anyone else; and as Dr. Schamberg says, we must have it so that we can thoroughly treat and study our syphilitics in the early stages; and then we will not have the long courses of treatment in later stages.

Through the cooperation of the board of health and the saloon-keepers' association in Cleveland, the saloon-keepers have agreed to remove all "patent-medicine" signs in their saloons, and they have placed up signs given by the board of health, directing persons afflicted with syphilis to go to the tuberculosis dispensaries, and they are sent from there to the syphilis department of Lakeside Hospital. In positive cases, we send the patients to the City Hospital, where they may get three or four doses of salvarsan and all the mercury they can stand. By this time all signs are removed from the skin; and then they are sent back to the day or night clinic. They are kept under treatment by salvarsan and mercury, and we charge $5 for the salvarsan if they can pay. We have a social service where the patient is kept under adequate control. In case the patient does not go to the clinic, the police call at his home and will put up a sign, if necessary, and insist on the person going to the hospital. We find that method works well.

Dr. James Herbert Mitchell, Chicago: At Rush Medical College the teaching of syphilis has been very much the same as at other colleges. About two years ago our department of dermatology began the treatment of syphilis intensively by organizing within the department a laboratory for serologic work, together with paid full-time workers for the intravenous injections; at the same time a social service worker, devoting her entire time to the work in syphilis, was added to the social service department of the college. By getting a corner on the patients it has been possible to attract the attention of all the departments in the college to this particular branch of medicine. The number of cases has increased by leaps and bounds. On the 1st of January we opened a night clinic two nights a week, for industrial medicine. Those patients in need of treatment for syphilis are referred to the syphilis department of the night clinic. Injections of arsenic preparations are given every day of the week, and on some days as many as thirty injections are given. The cooperation of the other departments in the college has been splendid; they are constantly referring patients to this department for treatment, meanwhile keeping their cases under observation.

The efficient work of the social service department has enormously increased the number of patients, until now we are in danger of being swamped with cases rather than of not getting them to return for treatment.

Dr. Isadore Rosen, New York: We all admit that syphilis is a constitutional disease. The dermatologist is usually called on to treat the external manifestations, or the eruption as it exists, regardless of the constitutional symptoms. In order to teach the subject of syphilis intelligently and thoroughly, the dermatologist and syphilologist must once more return to the practice of medicine and familiarize themselves with the use of the ophthalmoscope, stethoscope, pleximeter, and the various other instruments that modern medicine has devised to reveal the pathologic states.

Dr. Fordyce in his paper discusses the question of prophylaxis. To my mind this is the most important step forward; for the early recognition of involvement of any of the organs of the body, and the early institution of treatment before advanced pathologic changes occur, may arrest an advancing process. At the Vanderbilt Clinic we aim to perform lumbar puncture in all the patients with syphilis regardless of the stage of the disease. We also puncture all the patients before we discharge them as cured. It is surprising to note the number of cases that show positive findings in the secondary stage. Out of 275 unselected patients punctured during the last ten months, forty-five

were in the secondary stage; of these eighteen showed positive changes in the spinal fluid. Of course some clear up under the regular intravenous and intramuscular treatment; some again will not respond to the treatment, no matter how intensively employed. Teach the importance of prophylaxis in syphilis and reduce the inmates of the various institutions for chronic and incurable diseases.

DR. FRANKLIN W. CREGOR, Indianapolis: The gentlemen have held up to us ideal conditions for the teaching of syphilis, and in those institutions which have been splendidly endowed these ideal conditions may be maintained. In institutions of less wealth we can at least approach them. In the Indiana University School of Medicine, our junior students are divided into sections of about ten, and they remain in the section on dermatology and syphilis for a period of eight or ten weeks. We see from 400 to 500 cases a month in this dispensary clinic. The students observe the lesions; they hear the diagnosis, they become acquainted with the treatment, and they have the privilege of asking any questions that occur to them. Special cases are dwelt on specially. New cases are assigned to students, who present their work to the class at the end of the clinic, and their work is criticized. The first half of the clinic year in such cases, four to six or eight are presented in detail; and the last semester is devoted to didactic work. There should be the greatest opportunity for cooperation between the different departments, which probably most teaching institutions could improve on.

DR. JOHN H. STOKES, Rochester, Minn.: I believe you will be interested in the organization of the section of dermatology and syphilology in the Mayo Clinic. Dealing, as we do, with pay patients and not dispensary types, makes the problem we confront different from the average. The section was created in response to a realization on the part of the clinical staff that dermatologic material was passing through their hands. It was expected that my service should administer salvarsan, but it remained for us to demonstrate that the dermatologist of the clinic had something distinctive to contribute as a syphilographer, and was the logical head of a service for syphilis. Such a demonstration could not have been accomplished merely through official legislation or by force or fraud, but rather by showing that the dermatologist as a syphilographer had a point of view toward the disease which no internist, surgeon, nose and throat man, or other clinician could afford to disregard or refuse to utilize. Acting along these lines, and employing under Dr. Sanford a conservative Wassermann, which properly emphasized the value of clinical judgment in the diagnosis of syphilis, we have succeeded in developing a combined service for dermatology and syphilis which holds its place not only by virtue of official understanding, but also apparently because it has shown to a group of open-minded men that it is worth while to have one reasonably well-trained man devote his whole thought to this field, to coordinate the activities of other clinicians and direct the systematic treatment of syphilis. In the ten months since the organization of the service, incidental treatment of syphilis has been replaced by a thoroughgoing six-weeks' "Kur," with systematic oversight and follow-up systems adaptable to every form of the disease. The option on the treatment of practically every case of syphilis recognized in the clinic now rests with us. Beds are, I believe, a fundamental necessity on such a service, and we have accordingly a hospital unit of twenty-five beds for our exclusive use. The personal touch which Dr. Smith mentions is also a fundamental necessity, and we have been at great pains to develop it, with most gratifying results. No service should be allowed to grow to the point where it is lost sight of, and the clinician or consultant who belittles or overlooks it will not get long-run results. It is this element in our organization, I believe, which now enables us to individualize our patients so that we can care satisfactorily for a track laborer or a millionaire, and bring persons of limited means distances as great as 1,500 miles to meet follow-up appointments with us.

Dr. Boleslaw Lapowski, New York: As there is no standardized method of treatment of syphilis, it is not advisable to concentrate in teaching treatment of syphilis to one department and deprive other departments—for instance, the neurologic department—of the opportunities of teaching and of using their material and other methods. The teacher of syphilis may consider in his lectures all methods; but he will practice only one, namely, that which he believed to be the best. On the other hand, the teacher of nervous diseases may not agree with the syphilographer's conception regarding, for instance, the use of the spinal canal and its fluid for diagnostic and therapeutic purposes. He might consider his underlying conception a fallacy and his procedure superfluous, or even dangerous. Out of the clash of the different opinions and methods—of the anarchy in treatment, as it was called by a previous speaker—progress in treatment will develop, a healthful spirit of inquiry, a stimulus to scientific research will be engendered among the teachers, and the witnessing student will gain a broadening view of the subject. The medical student carries with him for many years what is inculcated in him during the molding period of his medical studies.

There is a tendency to sacrifice clinical teaching at the altar of the laboratory. The tendency is dangerous, as we weaken our chances of a most successful and necessary appeal from a very often capricious verdict of the laboratory. Moreover, in course of time, when, with the development of pathologic chemistry, the etiology of the various protein skin manifestations in syphilis and dermatology are known, the physician of that period will not be able to read correctly the report of the infallible laboratory of the living body, written on the skin, because we of the present generation neglected to pass on to him that art. This art is in danger of dying out with the present generation of physicians if we sacrifice clinical teaching for the sake of the laboratory.

Dr. John A. Fordyce, New York: I desire to emphasize the statement made by Dr. Rosen as to the importance of investigating the spinal fluid in the secondary period of the disease and impressing students with the fact that tabes, paresis, optic atrophy and the cardiovascular complications of syphilis probably begin in the first year of the infection. If, by early diagnosis and proper treatment, we can anticipate or cure complications at this time, we will do much to prevent the subsequent development of the large number of hopeless invalids who fill our hospitals and public institutions. Infection of the spinal fluid takes place in from 25 to 30 per cent. of patients in the secondary period of the disease, and sometimes during the administration of salvarsan and mercury. In such cases it is useless to continue the administration of the drugs in the usual manner, which do not reach the infection of the central nervous system. This can only be accomplished in certain cases by intraspinal treatment. A general recognition of this fact may lead to proper investigation and treatment of this unfortunate class of patients. When departments for the teaching of syphilis are properly organized in medical schools, students will begin the practice of medicine with a correct conception of the nature of the infection and be prepared to treat their patients according to approved and standardized methods. In time this will result in a diminution in the number of cases of cerebrospinal, cardiovascular and other types of late syphilis.

Dr. C. Morton Smith, Boston: A word in regard to the importance of diagnosing syphilis at the earliest possible minute, and of intensive treatment: It seems to me that having syphilitics treated in every department is much like the status of tuberculosis a few years ago, when the patient went from one department to another, receiving no consistent treatment. For instance, the condition of interstitial keratitis; when the local manifestation has recovered the interest of the ophthalmologist ceases, but the individual requires constitutional treatment for a long time. There is still need of careful clinical examination, together with a dark-field examination, and submission of blood for the Wassermann test. It seems to me the place for the Wassermann reaction is in conjunction with the other signs and symptoms of the disease. Not for an

instant would I give up the Wassermann test, but do not rely on it alone. The value of continued observation is of great importance, and the fact that the patient sees the same physician at each visit, is a great help in diminishing the amount of follow-up work required in a hospital clinic.

DR. WALTER J. HEIMANN, New York: The teaching of syphilis presupposes a general and therapeutic knowledge which no other disease requires. We are dealing with a social rather than an academic problem, and we must consider how best we can send men from the undergraduate schools fitted to combat a disease which is attacking the vitals of modern society. What we are attempting is to give the public a host of capable soldiers equipped with positive knowledge. There is one way to accomplish this, namely, by furnishing medical students with simple, coordinated instruction in a central department. If, as Dr. Lapowski suggests, we let everyone teach syphilis, then truly we will have the anarchy he speaks of. And at this time I want strongly to dissent from Dr. Lapowski's aphorism that anarchy is progress. Some of us with more ordered ideas think anarchy is subversive of the mental calm necessary for rational thought. We are teaching undergraduates, not postgraduates, and at their stage of development they are not able to criticize what they are taught. That comes later in life. We must give them enlightenment. They may have as much rope as they wish for criticism afterward. Medical students, however, are mere boys, and they must leave school with clear ideas imparted to them by their teachers. This cannot be, if every member of the faculty gives the boy a different point of view. He must at first learn dogmatically, and it is not beneficial to society to have his teachers undertake flights into the empyrean of anarchy. I believe that it is more the fault of the faculty than of their appointee if syphilis is taught by any one but the man best fitted for the task, and if that man does not believe he can teach he should not accept the appointment. On the other hand, if the faculty selects one unfit for this important work, it permits a social crime. If syphilis should be left open to teaching by any and every method, we might as well say that arteriosclerosis should be taught by the different departments. The same applies to diseases of the central nervous system, or of the kidneys. All of these conditions have manifestations bringing them within the scope of special fields of medicine. They are taught, however, in the centralized department of internal medicine. Their special manifestations are properly considered in suitable departments. Similar principles of centralization are necessary in the efficient teaching of syphilis, and such suggestions as Dr. Lapowski's are dangerous. I wish most emphatically to go on record against Dr. Lapowski's point of view for the sake of the reputation of this section.

THE CLASSIFICATION OF THE URTICARIAS*

RICHARD L. SUTTON, M.D.
KANSAS CITY, MO.

At this time, when our knowledge of the anaphylactic phenomena underlying the production of urticarial lesions is gradually becoming stabilized, if not perfected, a brief review of the various clinical forms of the disorder may not be out of place. Willan[1] recognized six varieties of the affection: two acute — U. febrilis and U. conferta, and four chronic — U. evanida, U. perstans, U. subcutanea and U. tuberosa; and his classification was adopted without alteration by Erasmus Wilson.

Since Wilson's day, a score of other names, all more or less descriptive in character, have been suggested for the various clinical varieties of the disorder. Crocker, who was as apt in describing the objective manifestations of a cutaneous malady as he was expert in recognizing them, described three principal forms of non-pigmentary urticaria—U. acuta, U. chronica, and U. papulosa—with almost a score of subvarieties; the more important being U. tuberosa, U. bullosa, U. hemorrhagica, U. factitia, and U. edematosa. His U. papulosa, the "lichen urticatis" of Bateman, bears a striking resemblance to the prurigo mitis of Willan.

The chronic forms are represented by U. recurrens, which is characterized by repeated outbreaks of the acute type, the skin seldom, if ever, being entirely free from lesions; and U. perstans, a form in which one or more "mother lesions" develop and persist, but become prominent and itchy only during concomitant attacks of wheals of the ordinary type.

The pigmentary forms of the disorder are less familiar to the majority of dermatologists. Localized or areolar pigmentation occasionally follows ordinary urticaria in adults, but it is to the variety first described by Nettleslip, in 1869, and christened "urticaria pigmentosa" by Sangster[2] (the urticaria perstans pigmentosa of Pick[3])

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1. Willan, cited by E. Wilson: Diseases of the Skin, Phila., 1857, p. 138.

2. Sangster: Lancet, London, May 11, 1878.

3. Pick, cited by Duhring, Cutaneous Medicine, Phila., 1897. 2 p. 301. Idem., Verhandl. d. deutsch. dermat. Gesellsch., 1889, p. 276.

that reference is commonly made when speaking of this variety of the disorder.

Unna first demonstrated that in true examples of urticaria of the Nettleslip[4] type the lesions contained vast numbers of so-called "mast cells," a fact which has since frequently been utilized in the differential diagnosis of the disorder.

Quinquaud,[5] and later, Lesser,[6] described cases of pigmentary urticaria in which the lesions, which early exhibited evidence of brownish or yellowish coloration, were mast-cell free. Quinquaud's patient was a boy of 10, and the eruption, which was for the most part macular and nodular, involved the face as well as the trunk and limbs. In Lesser's case, which occurred in a woman, aged 37, the pigmentary lesions were confined to the covered surfaces and had been present several months.

Ormsby[7] recently exhibited before the Chicago Dermatological Society a similar example of the nonmast cell type, also occuring in a young woman, and during the past year I have had under my care a case which was practically a duplicate of the one shown by Ormsby.

The patient was a woman, single, aged 24, a teacher by occupation, referred to me by Dr. Thomas T. Holt of Geuda Springs, Kan. The eruption, which had been present five months, involved the upper portion of the trunk, the arms and the thighs. At first the lesions could not be differentiated clinically from those of ordinary urticaria, although the majority were somewhat more persistent. At the end of a few weeks, however, it was found that many of the little tumors, which were for the most part pinhead to splitpea sized and oval in outline, persisted and assumed a pale-yellowish, chamois skin-like tint. When I first examined the case, fully 200 lesions of this type were present, and the patient was also suffering from intermittent attacks of urticaria acuta of the ordinary type. Following a series of cutaneous tests, it was found that egg-white was probably the provocative factor, and under a restricted diet relief was fairly prompt. The pigmented lesions persisted, however, with little or no change. Histologically, they resembled in some respects the "mother lesions" of urticaria perstans, although slightly more acanthotic, and, of course, far richer in pigment. The source of the coloring matter could not be definitely ascertained. No mast cells were to be found.

At this time I believe that the following classification of the urticaries may tentatively be adopted:

4. Nettleslip: Brit. Med. Jour., 1869, 2, p. 323.
5. Quinquaud: Ann. de dermat. et de syph., 1893, 4, p. 859.
6. Lesser: Verhandl. d. deutsch. dermat. Gesellsch., Wien., 1892, p. 245.
7. Ormsby: Trans. Chicago Dermat. Soc., 1917.

CLASSIFICATION OF URTICARIAS

- U. acuta
  - U. factitia (dermographism) — Red / White[8]
  - U. papulosa
  - U. tuberosa
  - U. bullosa
  - U. hemorrhagica
  - U. gigans
  - U. subcutanea (Willan. The urticaria edematosa of Hardy.)
- Urticaria
  - U. recurrens (the urticaria evanida of Tilbury Fox)
  - U. perstans
    - U. perstans tuberosa
    - U. perstans verrucosa
    - (excluding prurigo nodularis)
- U. pigmentosa
  - Mast cell type — Macular / Nodular / Maculo-nodular / Vesicular
  - Mast cell free type

8. Nikolsky has commented on the lack of discrimination in the textbooks between red and white dermographism. Drawing a spatula or the fingernail along the skin may cause the production of a red line along the path of this mechanical irritation, or a line of whiteness may be observed. The white line is particularly striking when it occurs on an area of skin already reddened by inflammation or sunburn. He expatiates on the antagonistic mechanism of these reflexes, and the importance of heeding this mechanism in treatment of skin affections. The red line indicates excessive irritability on the part of the vasodilating nerves, while the white line indicates a spasm of the vasoconstricting nerves. The reflexes may occur in different intensity on the trunk and on the extremities of the same patient, and they may differ likewise on the inflamed and sound skin of the same patient. The absence of any reaction is also instructive in certain skin diseases, and likewise the changes in the reflex under the influence of therapeutic measures. As hyperemia may occur from dilatation of the vessels under the action of unduly irritable vasodilator nerves, or it may occur from paralysis of the vasoconstricting nerves, the skin reflex will reveal which of these mechanisms is responsible. This will enable us to apply sedative or stimulating remedies as indicated, and places treatment on a scientific basis instead of on mere empiricism. If a person with white dermographism has the skin rubbed to induce hyperemia from the friction, and then the test for the skin reflex causes no white line to appear on the reddened area, we can assume a paralyzed condition of the vasoconstrictor nerves. The friction upsets the unstable balance of the vasoconstrictors, and the hyperemia induced is of the paralytic type. This may occur likewise from the action of the mercury vapor lamp and of carbonated baths.

In addition to the references cited, the following will be found of interest:

Crocker: Diseases of the Skin, Phila., 1908, 1, p. 155.
Blumer: Monats. f. prakt. Dermat., 1902, 34, p. 213.
Little: Brit. Jour. Dermat., 1905, p. 121 et seq.
Baker, Morrant: Med. Chir. Trans., 1881, 64, p. 384 (Urt. perstans verrucosa). Idem. Trans. London Dermat. Soc., Oct. 14, 1891.
Biddle: Tr. Sec. Dermat. Am. Med. Assn., 1916.
Pusey: Trans. Chicago Dermat. Soc., 1915.
Nikolsky: Russky Vratch, 15, No. 37, p. 865. Abstracted Jour. Am. Med. Assn., 1916, 67, p. 1797.
Sutton: Arch. Diag., 1913, 6, p. 341 (U. perstans).

Fig. 2.—Urticaria papulosa.

Fig. 1.—Urticaria perstans, showing two "mother lesions" in a case of many months' standing.

Fig. 3.—Urticaria pigmentosa sans mast cells. Case here reported.

Fig. 4.—Lesions on arm in case of pigmentary urticaria here reported. Some of the lesions in this locality were yellowish in color, but none were so deeply pigmented here as on the trunk.

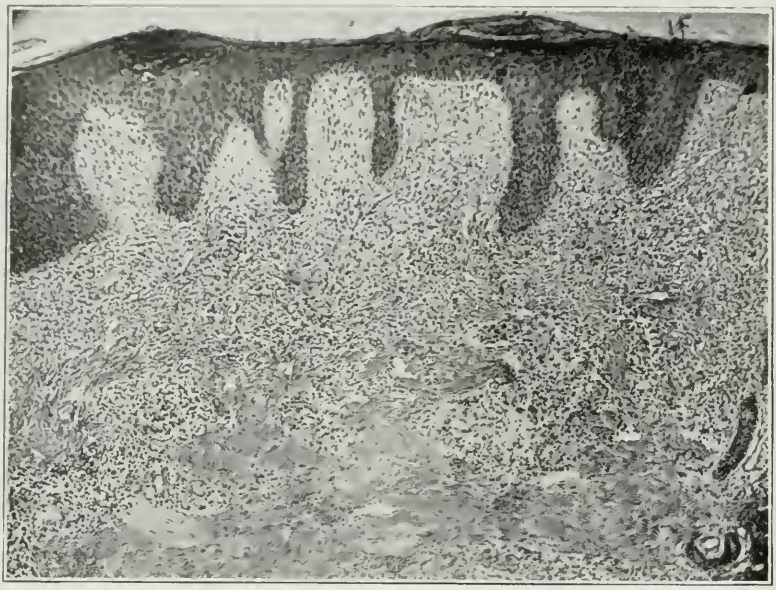

Fig. 5.—Urticaria perstans. Section from "mother lesion." Low magnification.

Fig. 6.—Urticaria pigmentosa of the bullous type. Low magnification. (Courtesy of Dr. William Allen Pusey.)

Fig. 7.—Urticaria pigmentosa of the usual variety. Note mast cells. Low magnification.

Fig. 8.—Urticaria pigmentosa sans mast cells. Case here reported. Low magnification.

LATE URTICARIA PIGMENTOSA, OR URTICARIA PIGMENTOSA BEGINNING AFTER PUBERTY*

M. B. HARTZELL, M.D., LL.D.
Professor of Dermatology, University of Pennsylvania School of Medicine
PHILADELPHIA

A marked characteristic of urticaria pigmentosa is the very decided predilection which it exhibits for infancy and early childhood. Of eighty-three cases collected by Blumer[1] in 1902, more than 67 per cent. began before six months of age, and 71 per cent. within the first year. But, while the affection remains practically a disease of infants and children, there has been, with the increase in the number of cases observed, a steady increase in the proportion of cases reported in which it began at a much later period of life. In a table compiled by Graham Little[2] in 1905, embracing 142 cases, including fourteen of his own, no less than twenty-two, or a little more than 14 per cent., began at or after puberty. Although these late or delayed cases in many instances do not differ in any essential particular from the early ones, a considerable number present more or less marked departures from the typical case; and it is the purpose of this short paper to call attention to some of the unusual features and to report two new cases beginning in adult age.

The adult cases rarely present an eruption of what may be designated the xanthelasmoid type, using the term employed by Tilbury Fox and which might well be still retained for the cases beginning in infancy with yellowish, infiltrated lesions. They are frequently largely or wholly macular in type and are for the most part distinguished by the mild character of the urticarial symptoms, or not infrequently by their complete absence; and in a few cases the relationship of the pigmented lesions to the urticaria was far from being satisfactorily demonstrated.

Under the title, "Chronic Urticaria Associated with an Eruption Consisting of Extremely Itchy Papules Followed by Ringed Pigmentation," Wallace Beatty[3] has reported a case of chronic urticaria occurring in a young woman, 23 years old, who for a year had suffered from what appeared to be ordinary "hives," the eruption coming and going in the usual fashion. After some months another eruption appeared

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1. Blumer: Monatsh. f. prakt. Dermat., 34.
2. Little: Brit. Jour. Dermat., 17.
3. Brit. Jour. Dermat., 1891.

which consisted of extremely itchy, raised, red spots which after a few days flattened down and became brown. These papules "did not develop as wheals, but were independent of them." Many of the brown spots were circular in shape, having whitish centers, others were uniformly brown. No factitious wheals could be produced. In reporting this case the author refers to two cases of a similar kind, observed some years before, occurring in two brothers, one of them 15 years old, the other 12. As no microscopic examination of the lesions was made the presence or absence of *Mastzellen* was not determined.

In an adult case occurring in a woman, observed by Graham Little, the affection began at 33 years of age, as dark spots which spread and eventually formed large areas of pigmentation. The brown patches were slightly itchy in the beginning, but there was no history of wheals at any time during the course of the malady; there was a mild dermographism. *Mastzellen* were present in small numbers, much less abundant than is usual in urticaria pigmentosa but much more numerous than in the normal skin or in any other diseased condition.

As urticaria with the formation of pigment, Rona[4] has reported a somewhat similar case of seven years' duration in a young man, beginning at 18 years of age as an ordinary urticaria, but followed later by pigmented patches which varied in size from a one-mark to a five-mark piece. The microscopic examination showed a cellular infiltrate chiefly about the vessels, the sebaceous glands and the ducts of the sweat-glands, composed of mononuclear leukocytes, plasma-cells and a moderate number of *Mastzellen*.

At a séance of the Société Française de dermatologie et de syphiligraphie, Hallopeau* presented as a case of urticaria pigmentosa a man with a pigmented eruption most abundant on the trunk but also present on the limbs, arranged in parallel bands. The only subjective symptom was a slight pruritus in the evening when the clothing was removed. In addition to the unusual arrangement of the pigmentation, a second remarkable feature was present as scattered superficial cicatrices. The correctness of the diagnosis was questioned by Brocq and Besnier, but was maintained at a subsequent meeting by Hallopeau after further observation of the case. There was no microscopic examination of the lesions.

One of the latest cases is one reported by Darier[5] which began in a man at 55 years of age. The malady began very insidiously, the eruption resembling the bites of insects. There were no spontaneous urticarial attacks and no itching, but factitious urticaria could be pro-

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* Hallopeau: Ann. de dermat. et de syph., 3 s. 6.

4. Rona: Arch. f. Dermat. u. Syph., 40.

5. Darier: Ann. de dermat. et de syph., 4 s. 6.

duced. In a second case observed by the same author the pigmentation first appeared at 16 years of age without urticaria and without itching. In both these cases the presence of *Mastzellen* in abnormal numbers was demonstrated by biopsy.

As urticaria perstans with the formation of pigment, Doutrelepont[6] has recorded a case of urticaria in a man, beginning at 38 years of age. It began as an eruption of wheals which lasted several days and disappeared very gradually, leaving pigmentation. Some of the wheals, especially those on the hands and thighs, were very plainly hemorrhagic. Microscopic examination of nonhemorrhagic lesions showed practically the same histologic features as a case of urticaria pigmentosa reported at the same time by this author. There was a trifling exudate of small round cells in the midst of which were *Mastzellen*, less numerous, however, than in the case of urticaria pigmentosa. The author was not inclined to attribute much importance to the presence of *Mastzellen* in the latter disease, since these are more or less increased in all inflammatory affections of the skin.

As a pigmented urticating disease (maladie pigmentée urticante), Quinquaud[7] presented before the Société Française de dermatologie et de syphiligraphie, a man, 55 years old, who had an abundant eruption of pigmented macules situated chiefly on the trunk. Some of the macules were various shades of yellow, others were red and still others were of a decided bluish hue. The affection had begun ten years before, with macules which itched moderately when rubbed and became slightly elevated; there was likewise a factitious urticaria. The histologic examination showed pigment in the lower cells of the rete, but no *Mastzellen*.

Lesser,[8] at a meeting of the Berlin Dermatological Society, exhibited a woman, 27 years old, who six months before had had an eruption of wheal-like lesions, the size of a lentil, which increased in size later until some of them were as large as a ten-Pfennig piece, were 0.5 cm. high, and became brown. There was a marked factitious urticaria, but never the slightest itching. Very few *Mastzellen* were found in the lesions.

Kreibich[9] has reported a case closely resembling the foregoing in a woman, 42 years old, which had begun eight or ten years before, as an eruption of urticarial wheals without itching, followed by pigmentation. Unlike Lesser's case, however, *Mastzellen* were present in the lesions in great abundance.

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6. Doutrelepont: Arch. f. Dermat. u. Syph., 22.
7. Quinquaud: Ann. de dermat. et de syph., 3 s, 6.
8. Lesser: Dermat. Ztschr., 7.
9. Kreibich: Arch. f. Dermat. u. Syph., 48.

Bohac[10] observed a case in a man, 40 years old, in whom the affection had begun thirteen years before, with such complete absence of subjective symptoms that the patient's attention was first called to the eruption by his wife, who noticed the pigmented patches and thought they were moles. Factitious urticaria could be produced. The histologic examination showed some edema of the rete with vacuolization of cells in the lower layer and collections of pigment over those portions of the cutis in which pathologic alterations, such as a moderate exudate of mononuclear leukocytes around the vessels, were present. *Mastzellen* were found in abundance, both disseminated and as *Mastzellen* tumors.

Biach[11] has recorded a case in a woman who at the time of the observation was 54 years old. The affection had begun seven years before, as a more or less generalized red eruption, which later became brown; there was marked factitious urticaria. There was abundant pigment in the lower portion of the rete and upper part of the corium, with some perivascular and periglandular exudate of mononuclear leukocytes, but no *Mastzellen*.

Quite recently Kerl[12] has reported a case as pigmented urticaria, occurring in a young man, 22 years old, who presented an abundant eruption consisting of dark-brown macules, red nodules the size of a lentil and blue macules especially abundant on the penis, resembling *taches bleuatres*, but no pediculi nor ova could be found. While he was under observation typical urticarial wheals accompanied by severe itching, appeared. The patient's general condition was not good. A microscopic examination of the lesions showed considerable quantities of pigment in the papillæ of the corium, but the rete was almost completely free, and *Mastzellen* were entirely absent.

Still more recently, Cassar[13] has recorded a case in a youth, 15 years old, the affection beginning as itching red papules which were followed by brown macules. For a time urticarial lesions, limited to the trunk, appeared almost daily accompanied by moderate dermographism. An especially interesting feature was an eosinophilia of 8 per cent. Only a small number of *Mastzellen* were found along with a perivascular infiltration of polynuclear neutrophils.

Within the past year, two adult cases of urticaria pigmentosa have come under my observation, and both have presented some unusual features.

Report of Cases

Case 1.—A man, aged 28, came to the skin dispensary of the University Hospital in May of last year, with an abundant and widely distributed erup-

10. Bohac: Arch. f. Dermat. u. Syph., 82.
11. Biach: Arch. f. Dermat. u. Syph., 3.
12. Kerl: Arch. f. Dermat. u. Syph., 118.
13. Cassar: Ann. de dermat. et de syph., 5 s. 6.

tion, no region except the face being free, consisting of quite small, round and oval, brownish-red and brown macules and very slightly elevated maculopapules. When rubbed, the lesions, particularly the red ones, became slightly elevated and a moderate dermographism was present. There were no subjective symptoms worthy of note. The affection had begun five years previous, following an attack of "hives" which had come on at the seashore, lasting about two weeks. It could not be learned with any degree of certainty how soon after the hives the pigmentation had appeared, but it was quite definitely ascertained that there had been no other urticarial attacks throughout the entire course of the disease. From a little distance the eruption resembled very closely a maculo-papular syphiloderm, undergoing involution. A biopsy fully confirmed the clinical diagnosis of urticaria pigmentosa, and it may be added that there was a negative Wassermann reaction.

CASE 2.—Early in February, 1917, Mrs. K. C., aged 26, came under observation with a scanty eruption of small, oval and round, brown macules, some of which very slightly projected above the surface of the skin, situated principally on the flexor surface of both forearms. A few spots were also present on the malar eminences, the chest, the legs and the feet. Those on the face had appeared only quite recently and it was the appearance of the eruption in this region which led the patient to seek advice. There were no subjective symptoms of any sort, nor any history of urticaria at any time. The eruption had been first noticed seven years ago, when the patient was 19 years old. As in the preceding case, the clinical diagnosis was confirmed by a microscopic examination of the lesions.

HISTOPATHOLOGY

Sections made from an excised maculo-papule of the first case showed decided pathologic changes in both the epidermis and the corium. In the former, there was a moderate intercellular edema with considerable acanthosis and vacuolization of some of the cells in the central portion of the rete. In the lower layers of the rete there was considerable pigment which was not uniformly distributed along the line of junction with the papillary body, but was most abundant at the bottom of the interpapillary prolongations and entirely absent in other parts. In the papillæ and especially in the subpapillary portion of the corium there were numerous *Mastzellen* of large size and for the most part round or oval in shape, although spindle-shaped and branched cells were also present. They were arranged in rows running parallel with the surface of the skin except in the papillæ, where they were situated along the vessels. A noticeable feature was the presence of numerous granules outside the cells, in places some distance from any cell, which stained like the intracellular granules. It was quite apparent that these were derived from the *Mastzellen*, many of which exhibited decided signs of disintegration. Here and there were small collections of mononuclear leukocytes and in a few places polymorphonuclears.

In sections of the second case the *Mastzellen* were decidedly less numerous than in the first, but still much more abundant than in normal skin or in other diseases. They were comparatively small and were almost entirely of the spindle-shaped and branched variety. No

extracellular granules, such as were found in the sections of the first case, were observed.

A number of unstained sections were examined with the view of learning how much of the pigmentation, if any, was due to the *Mastzellen*. Graham Little and Raymond[14] regard it probable that it is largely, if not wholly, due to the accumulation of these cells; but even a cursory examination of unstained sections showed that the pigmentation was wholly due to the presence of pigment in the rete and upper portion of the corium, and not at all to the *Mastzellen*.

Fig. 1.—Photograph taken in 1907, at the time of entrance into hospital.

While it may be admitted that the diagnosis in a number of the adult cases very briefly summarized in this paper is open to question, it must be granted, I think, that they all belong to a group of cases of which the several members are at least closely related if they do not represent the same affection. Some of them were reported as cases of chronic urticaria with pigmentation and not as urticaria pigmentosa.

14. Raymond: Thése de Paris, 1888.

the distinction from the latter malady depending on the scantiness or complete absence of *Mastzellen*, but clinically they frequently resembled the cases in which these cells were quite abundant. It does not seem to have occurred to any one that *Mastzellen* may have been present in some of these cases in the earlier stages and have disappeared later. As the result of my own limited experience with the affection and a somewhat extensive survey of the literature, I do not think the small, often insignificant, rôle played by urticaria in the symptomatology has been sufficiently emphasized, although all authorities are agreed as to the inappropriateness of the name by which it is known. In a considerable proportion of the late cases, urticarial symptoms have been wholly absent or so insignificant as to attract but little

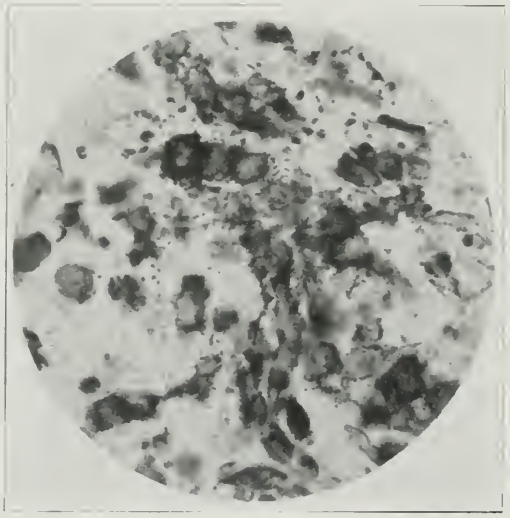

Fig. 2.—Disintegrating *Mastzellen;* granules outside of cells.

attention on the part of the patient; and in those in whom wheals or wheal-like lesions were present, itching was often trivial and not infrequently absent altogether.

DISCUSSION

DR. PUSEY said he thought Dr. Sutton had done a distinct service in attempting to classify the urticarias. He said "attempting." The speaker assumed that Dr. Sutton did not feel competent to say the last word on the classification of the urticarias. He said he was not able to discuss Dr. Sutton's paper, because a paper of that sort needed a good deal of agitation and we would discuss things not germane to the subject.

In connection with Dr. Hartzell's paper the speaker said he would like to report a case of urticaria pigmentosa occurring in an adult who was under his observation a year or two but had since gone to Italy. The patient was an Italian, 30 years of age, in whom the disease developed in the twenties. He had pea-sized oval lesions. So far as the speaker knew, there was noth-

ing in the history except urticaria pigmentosa, with the typical xanthelasmoid-like lesions. He had a photograph of the case, which was passed around. Histologically, it was a typical case of urticaria pigmentosa. There was an infiltration of mast cells. He thought the mast cells may be overlooked in these cases, unless special stains were used for them. It was said that the character of the cells was by no means clear until we used a special stain. One interesting feature in this patient's case was that occasionally vesicles were found on top of small nodules, and the speaker had a photograph of one of these small bullae, and another showing dense infiltration of the mast cells around the nerve. This patient was seen by several of the dermatologists present. The disease developed in adult life and showed histologically the typical picture of urticaria pigmentosa.

Dr. Ruggles said he saw a case of urticaria pigmentosa in an adult, years ago. The patient was a man, 30 years of age, in whom the disease had been present a couple of years. The disease began as small, yellowish, pigmentary marks, without itching. The marks increased in size and became darker in color. It made the young man miserable because he loved athletics and swimming and was ashamed of the cosmetic defect. He became a neurasthenic lately on account of this disease, although he was assured it was harmless. He was finally killed in a railroad wreck and his troubles were ended.

Dr. Wallhauser said he would like to report a case he had under observation, which he was going to present before the meeting of the American Medical Association. The patient was a woman, 30 years of age, whose cutaneous manifestations began very much like the case reported by Dr. Hartzell and they correspond with his case in regard to the distribution of the lesions, affecting the extensor surfaces of the arm, the angle of the jaw and slightly the thighs. The lesions were quite uniformly of pea-size and began without much itching, with recrudescence of the irritation. An interesting feature in connection with this case, and one he had previously mentioned, was a recrudescence following the injection of an immunizing dose of antitoxin. Every one of these macules developed efflorescences more marked than in any other previous attack.

Dr. Hazen said he should like to say a word about the classification of chronic urticarias. It seemed to him the time was rapidly approaching when we shall be able to classify the urticarias according to an etiologic basis. There were two groups we may call special attention to at the present time; the one group of chronic urticaria associated with focal infection of some sort—malaria, for instance. In his own experience he had had a number of cases in his clinic associated with syphilis. He found in a hospital clinic that nearly one third of the cases that gave a positive Wassermann, cleared up after the administration of salvarsan and mercury, and relapsed when medication was stopped and cleared up again when medication was resumed. There was some etiologic basis for these cases.

Chronic urticaria may accompany hydatid cysts. He had had one or two illustrations in which the tonsils and the teeth were infected. A second group of chronic urticarias was associated with vagatonia, a large number of impulses going out through the vagus nerve.

As to whether any of the urticarias were associated with the opposite nerves, a sympathetic vagatonia, he did not know. We knew definitely that atropin had been used for a long time to relieve certain cases of chronic urticaria. We had a rational basis for its use in the fact that atropin blocked the impulses that went down through the vagus nerve.

Dr. Heimann said it had been delightful to listen to these two papers dealing with such important subjects. He agreed with the last speaker as to the necessity and emphasis for a classification of the urticarias on an etiologic basis. We knew we had a number of causes at work in producing hives. Almost any substance was capable of doing it, whether the flesh of animals, protozoa,

or bacteria, etc. He wondered, in the last analysis, whether one cause capable of producing all these manifestations may not be a sort of protein, in the sense of Vaughan.

With reference to urticaria pigmentosa, it was a disease about which there had been considerable confusion, largely because our conception of it had not been based on a sound etiology. Unquestionably urticaria pigmentosa or xanthelasmoidea was difficult to differentiate from pigmented urticaria, in that they looked so much alike that we could not rely on the clinical manifestations of the disease to differentiate the two processes. There was a satisfactory way of differentiating between the two, and that was by means of the microscope. The deeper lesions may lose their mast cells, so if that was the case we would not be able to distinguish microscopically between a waning urticaria pigmentosa and ordinary pigmented urticaria. Whether the mast cells were regarded as the final criterion, he did not know. He believed every one to be familiar with the work of Jadassohn in connection with nevi. That writer reported as long ago as thirty years having found mast cells in infantile urticaria pigmentosa. On the other hand, inflammatory cells occurred and nevus cells occurred, and which of the two interpretations in urticaria pigmentosa will be the correct one, the speaker did not know. The isolation of a mast cell here and there was not enough to make a diagnosis of urticaria pigmentosa. He was inclined to think from the fact that the majority of cases of true urticaria pigmentosa occurred very early in infancy, a great many were undoubtedly congenital. It may not be impossible that they recurred temporarily in the sense of nevi. Whether grouping any congenital anomaly of the skin as a nevus was acceptable or not was problematic.

The other type of urticaria pigmentosa he should regard as a latent form of nevus, in the same way we saw nevi developing long after adolescence, in middle and adult life. He only ventured these suggestions because in thinking along these lines, although he accepted none of his ideas as final, we may perhaps in the course of time come to some definite conclusions.

Raynaud regarded nothing as urticaria pigmentosa in which mast cells were not found. This was a good practical working basis to differentiate between the two types of urticaria, the true type and simulating type, and that being the case, he would suggest that instead of using the word urticaria pigmentosa, we accepted the designation of xanthelasmoidea until we had a better one in which mast cells were not found. Pigmented urticaria designated the clinical characteristics.

DR. ENGMAN said that probably the largest group of urticarias, from an etiologic standpoint, was due to the introduction of foreign proteins. These foreign proteins may be introduced in many ways. Various instances were mentioned of urticaria pigmentosa undoubtedly being a distinct disease. There must be generated, at certain points, some chemical substance or agent which stimulated the formation of mast cells, which was the fundamental factor in urticaria pigmentosa. It was interesting to note that at certain periods of life a hormone or some chemical body stimulated the formation of nevi or the formation of groups of cells. He thought Dr. Ormsby's case of cystadenoma which appeared suddenly and then disappeared, some years ago, was a beautiful illustration of such a fact.

Recently the speaker had seen such an illustrative case. A young woman, 20 years old, had a severe illness, with high temperature. In a short time a number of nevi on the body began to grow, and then numerous nevi appeared all over the body, of epithelial origin. They were mostly black moles. There were developed in her body also other changes we saw in connection with the preclimacteric or presenility. We must accept the fact that there may be generated in the body specific chemicals which may act at specific points and produce cells such as we saw in urticaria pigmentosa.

DR. WENDE said that while the cases of which he wished to show photographs did not correspond very closely with those reported, they were two

typical instances. In one the lesions began at the time of birth or soon thereafter, and disappeared at about the time of puberty. In the other case, the cutaneous manifestations began soon after birth and exist today, the lesions covering the entire body. On irritating the skin with some blunt instrument a factitious urticaria was easy to establish and the places would have a beaded appearance. Those of us who were familiar with Dr. Morrow's case knew that that constituted a typical sign in his case.

As to the case of Dr. Ruggles, the speaker had the pleasure of seeing it through his courtesy. It was a remarkable instance of urticaria developing after puberty, at the age of 30. The lesions continued to develop and covered his entire body.

Dr. Hartzell said there could be no doubt about the desirability of an etiological classification in urticaria, but there were too many things we did not know about its causation to make this possible at the present time. By far the larger number of cases arose from the ingestion of certain food substances, but there were other causes. There was the well-known case of Hebra, in which the introduction of a uterine sound was always followed by an attack. The author had very vividly in mind a case in which emotional disturbance was the exciting cause. The patient was a man who held a very responsible position on a railway and whenever he was overworked or excited he had an attack. He was late in keeping his appointment with the author and was somewhat flustered when he appeared in his office; within a very few minutes he was covered from head to foot with wheals, although entirely free when first seen.

The speaker would have liked to have heard discussed the relationship between the so-called pigmented urticaria and urticaria pigmentosa. A number of cases had been reported in which chronic urticaria had been followed by pigmentation and these were regarded by the reporters as quite distinct from urticaria pigmentosa. The absence or small number of *Mastzellen* had been regarded as a point in differentiating these cases from the latter, but these cells may have been present even in considerable numbers and have disappeared, as had been noted in a few instances. In the photomicrograph presented by the speaker, it was quite evident that many of the *Mastzellen* were disintegrating, and if sections had been made at a later period they would have been altogether absent or present in but small numbers.

Society Transactions

CHICAGO DERMATOLOGICAL SOCIETY

Regular Meeting, Dec. 19, 1916

Udo J. Wile, M.D., *President*

CASE FOR DIAGNOSIS. Presented by Dr. Stillians.

The patient was a man, aged 31 years, who had had dermatitis herpetiformis for three years. He had taken arsenic about half the time during that period, taking it for two weeks and then stopping it for two weeks. He had had hyperkeratotic hands for several years and had been advised by Dr. McEwen to stop the arsenic. He had received five autoserum injections, with about the same effect that the arsenic produced. He was supposed to have had syphilis eight years ago and had a positive reaction last spring. Recent Wassermann tests were negative. He had recently had an infiltration on the outer surface of the prepuce which was supposed to be in the same location as the primary lesion of eight years ago.

DISCUSSION

Dr. Pusey was interested in the palmar dermatosis because of the relative frequency with which such cases occurred. He said this patient had acne on his back and gave a history of the long continued use of arsenic. The keratoses were of the type seen from arsenic and he had felt that they might be of arsenical origin. He had reported at one of these meetings, a year or two ago, a patient who had a sudden development of palmar keratoderma from a very small quantity of arsenic. Much to his surprise, this keratoderma disappeared in the course of a year.

He had had an opportunity of treating a number of cases with autoserum and had given it as indicated by the condition of the patient. He gave the injections until the patient improved and then if there was a recurrence, he returned to the treatment. He gave it without any arsenic and thought it the best thing to do for them. He had two such patients at present; one a worker in a wholesale house and the other a carpenter. They were young men, both greatly reduced in strength and he had kept track of them up to the last few months, when both patients were back at work and in very good shape. He had seen one of the patients recently and he stated that the eruption disappeared within a few days. There was a recurrence in two weeks and after a second injection the eruption cleared up again and he had had no return since.

Dr. Foerster asked how far apart the doses of autoserum had been given and if the attacks appeared in the intervals.

Dr. Harris recalled to Dr. Pusey the patient with dermatitis herpetiformis who had taken arsenic and while he was taking the arsenic, developed another attack which cleared up under autoserum. The lesion of the penis did not look like a chancre. It looked to him like a possible granuloma annulare.

Dr. McEwen said that this patient appeared at the clinic about two years ago, with a very decided case of dermatitis herpetiformis, with a history of syphilis and a large number of neosalvarsan injections. At that time he had the hyperkeratosis of the palms and the question arose whether salvarsan could produce it. As he recalled it, the Wassermann at that time was negative. There

was no hyperkeratosis except on the palms. He wished to ask if any of the members had observed cases of hyperkeratosis from the use of salvarsan.

DR. WILE said he had seen two patients who had a pronounced exfoliative dermatitis following salvarsan; one case followed repeated doses of neosalvarsan, the second came after the third dose of old salvarsan.

DR. STILLIANS stated that the man had received five autoserum injections at intervals of a week. The first did not have much effect but the lesions cleared up after the second injection. The patient stated that he had had the keratosis in the palms for nearly three years. He had received twelve injections of neosalvarsan about two years ago.

CASE FOR DIAGNOSIS. PRESENTED BY DR. HARRIS.

The patient was a young man, aged 17 years. The latter part of July he noticed a swelling in the parotid gland and about the same sime the lower eyelid on the same side became affected. There was a white spot on the mucosa which his physician thought was a stye. A few days later the gland was lanced and pus drained. A discharging sinus continued and about the middle of November the gland was removed. The condition of the eyelid had gradually extended but had recently shown improvement. When the eyelid was everted some small yellow spots were seen to be present. Repeated Wassermann tests had been negative.

DISCUSSION

DR. MCEWEN thought that if it was a blastomycosis there would be more destruction of the tissues. He thought the eye lesion was a meibomian cyst.

DR. WAUGH thought of a tuberculosis with some chronic infection mixed with it. He did not consider it a blastomycosis.

DR. HARRIS said that if the lesions could have been seen by daylight it would have been much better. He had considered it a tuberculosis and had taken out two of the brownish spots in one of which he had looked for giant cells. It had popped out in a gelatinous mass, much as a tubercle would do. The spot on the eyelid was painless. Cultures had shown staphylococcus growths.

EXFOLIATIVE DERMATITIS OF HANDS AND FEET. PRESENTED BY DR. PUSEY.

The patient was a locomotive engineer who lived under good conditions, but for the last two years had had repeated attacks of exfoliative dermatitis of the hands and feet and some suspicious looking areas on the shoulders. He was constipated but there was nothing else to account for the trouble. The only evidence of food idiosyncrasy was the fact that he could not stand even the sight of cooked tomatoes, although he could eat them raw. This was the third attack. The eruption never occurred over the backs of the hands but was confined to the palms, and had always come on suddenly, with soreness and swelling all over the palms. He had had no medicine to account for the condition. The feet were often more affected than the hands.

DISCUSSION

DR. SHAFFNER thought the most interesting thing was the fact that there was a process that could produce such a condition and the fact that it could be produced through drugs, although the man gave no history of taking drugs. The patient stated that it was not preceded by vesicles but that the skin simply peeled off.

DR. WILE thought the case one of erythema exudativum involving the hands, although one should consider exfoliating erythema and an occupational dermatosis, in the differential diagnosis.

DR. HARRIS considered it a multiform erythema and said that would produce a marked hyperemia of the palms which would be sufficient to cause the exfoliation.

DR. MCEWEN thought a multiform erythema the most plausible explanation. He thought the feeling of malaise the man mentioned having had at the onset would hardly fit in with an external irritation from oil or coal.

DR. PUSEY did not believe that the patient's occupation was a factor of importance in the eruption. He had thought, in connection with this case, of the cases of recurrent exfoliation of the skin which had been reported by French authorities and also in this country. He thought Dr. Hyde had reported such a case. He believed that could be ruled out in this case, and thought, also, that the case could not be considered an ordinary erythema multiforme, but he did believe it was a case of exudative erythema of toxic origin which in its etiology was the same as erythema multiforme.

LINEAR NEVUS. PRESENTED BY DR. SENEAR.

The patient was a man, aged 32 years, who had presented himself for treatment for a linear nevus which had begun about nine years ago. The lesion extended from the crural region to the ankle, forming a linear band which gradually grew narrower and lighter in color as it reached the ankle. It had been burned out below and treated above with some drying agent, the nature of which the patient did not know.

DISCUSSION

DR. HARRIS did not like the term nevus which was applied to it. He thought a nevus coming on at this age and running along the course of a nerve would suggest the name that the Germans had supplied, a hyperkeratotic, "strichformige" eruption.

DR. WILE thought there was a good deal of justification for the application of the term nevus. More particularly can the term nevus be applied to such a lesion because pathologically they were made up of nevus cells. He was sure that if the lesion were examined under a microscope, cells of the nevus type would be found.

CHRONIC DERMATITIS OF THE HANDS, WITH ATROPHY. PRESENTED BY DR. STILLIANS.

The patient was a Jewish tailor, aged 35, who had had dermatitis on the hands for many years. Twelve years ago he had reveiced Roentgen-ray treatment for this trouble, with the result that the hands got red and sore. The patient complained a great deal of anorexia, but maintained his weight well. The hands were smaller than normal and there was an apparent contracture. He had not been able to work for a year. The case was presented with the possibility in mind of the atrophy having been the result of the Roentgen-ray irritation.

DISCUSSION

DR. SHAFFNER thought some of the atrophy of the muscles could not be accounted for by the condition of the skin and thought that perhaps some nervous lesion (cord) could be considered.

DR. WAUGH was not impressed with it being due to radiotherapy. He could not distinguish any telangiectatic vessels such as one would expect to find if such were the case. He thought it was more like a scleroderma.

DR. HARRIS thought it was easy to explain the atrophy of the muscles as the atrophy of disuse; the man had been able to work only a little during two years and he had at times showed distinct eczema of the palms which extended up the arm. Against the Roentgen ray as a causative agent would be the

fact that the sweat follicles of the skin were still distinctly present. which one would not expect had the Roentgen ray been to blame.

DR. PUSEY thought it was not necessary to consider anything but the chronic condition of the hands to account for the atrophy. He said he had a photograph of a man with a chronic dermatitis of one hand which was due to ringworm. The man had not used the hand for years; there was a contraction and reduction in the size which was strikingly like that in this case.

DERMATITIS WITH PIGMENTATION AND DEPIGMENTATION.

PRESENTED BY DR. STILLIANS.

A Hungarian carpenter, 44 years old, had a dermatitis beginning on the hands nearly two years previously, extending over the whole body, causing great itching. He noticed the pigmentation ten months after its onset. He presented a chronic dermatitis of the hands and arms with thickening of the skin and some desquamation. The skin of the trunk was slightly thickened and showed a few scratch marks, but was deeply pigmented, with large areas of loss of pigment. Smaller, white areas were present on the backs of the fingers. He had received small doses of dried adrenal gland for several months with only slight improvement and recently small doses of thyroid gland, with no more result.

DISCUSSION

DR. HARRIS thought it was a general eczema due to some trouble in the bowel. When the man was first seen he had a generalized dermatitis; the skin was then somewhat scaly but the main thing was the itching. The interesting feature of the case was the pigmentation. He thought he had a so-called auto-intoxication; there were enlarged glands and the man had received no arsenic since he had been under observation.

DR. PUSEY thought the pigmentation was too diffuse and irregular to be due to the adrenal disturbance. He said he had seen a good many cases of pigmentation from adrenal and other tumors in the abdomen but never one as diffuse as that. He did not know what the case was but thought it more reasonable to think of a hyperpigmentation following an extensive chronic dermatitis with the patches of depigmentation, where the process had been so intense that there had been complete throwing off of the epidermis.

DR. MCEWEN thought it was necessary to consider the adrenals as a factor in the cause of the trouble. He said that about a year ago a patient had died in the county hospital with a generalized sarcoma in which the skin lesions were those of virtiligo, which began at the same time as the tumor growth. In that case the adrenals were found to be extensively involved in the sarcomatous process.

DR. FOERSTER thought there should be constitutional disturbances—diarrhea, asthenia, and other indications if the trouble was due to the adrenals, that is, if Addison's disease was in question.

DR. STILLIANS said the man had been in the hospital for some time and had seemed to improve slightly on adrenal gland and later on thyroid gland, but whether the improvement was due to the glandular substance or to external applications he was not sure. He had been much interested in the vitiligo as possibly connected in some way with adrenal disturbance.

PREMYCOTIC ERUPTION. PRESENTED BY DR. HARRIS.

The patient was the young lady who was shown at the last meeting by Dr. Zeisler, as a premycotic eruption. At the time of the last meeting she showed only the pigmentation but now she showed some definite wheals with vesicles and the areas were all very much pronounced. On the buttocks there was a definite bulla. She had had no sore mouth but the itching was worse

than it had been in recent attacks. This attack was intermenstrual but the others had been just before or immediately after menstruation.

DISCUSSION

DR. MCEWEN thought the case was one of erythema multiforme.

DR. PUSEY said that when he saw the case at the last meeting he thought it was a beginning mycosis fungoides, but he thought that diagnosis was overthrown by the present condition of the patient. The lesions were much like those of erythema multiforme, but they were present in the same location as before and such persistence was not often seen in erythema multiforme. He considered it a most interesting case, and thought it was some sort of a toxic eruption, but was extraordinary. He said it was not mycosis fungoides as we know it and yet he thought it might possibly go on and still be a mycosis fungoides. The fact that there was such intense itching and that the lesions appeared in the same place each time would bear out this belief. At the previous meeting the lesions were distinctly like those of beginning mycosis fungoides. Many cases of reported mycosis fungoides had undoubtedly been leukemia, but many were not.

DR. HARRIS thought it was recurrent urticaria or erythema multiforme. He said the itching was very severe and the lesions always recurred in the same locations, coming and going within a short time.

DR. WILE thought that cases had been reported of mycosis fungoides which had begun as erythema multiforme.

CASE FOR DIAGNOSIS. PRESENTED BY DR. SHAFFNER.

The patient was a young woman, aged 25 years, married. The duration of the trouble was one and one-half years. She stated that she had had a similar attack about three years ago. She complained of considerable itching. The therapeutic and Wassermann tests were negative.

She had a generalized papular eruption with some tendency to grouping, especially around the buttocks and waist line, and there was some tendency toward pigmentation. At times there had been some scaling. The lesions scaled on scratching them with the nails, although it could not be said that scaling was a marked feature of the disease. Some of the lesions had left some scarring and the pigmentation was especially marked about these scars. There were present, in addition, a few small bright red lesions, almost pustular in character, covered by a very fine, acuminate scale.

DISCUSSION

DR. WILE favored the diagnosis of pityriasis lichenoides chronica. The lesions were papular and presented a very fine, very persistent scaling. This case was not associated with any distinct atrophy; the atrophy which was present could be easily accounted for by the fact that the patient had scratched some of the lesions and undoubtedly infected them.

DR. MCEWEN thought the question of its being a papular tuberculid would have to be considered. He had seen very few cases of pityriasis lichenoides and in those the lesions had been larger. Some of these lesions looked as if they had been produced by scratching; some of them seemed to be fresh. He thought the case should be thoroughly investigated as to a tuberculous focus.

DR. WAUGH considered it more like a tuberculid than anything else. Some of the lesions had a depressed center and would in all probability leave scars.

DR. HARRIS thought it was a tuberculid with a central atrophy and a surrounding pigmentation. He thought some of the lesions appeared as if due to scratching. He believed the history of it coming out in crops would speak for it and the distribution would not speak against it.

DR. FOERSTER considered the case one of pityriasis lichenoides chronica. He said he had shown a well developed instance of this condition several years ago, in which the lesions came out in crops of small papules, preceded by itching, which was the history given by this girl. Considerable adherent scaling developed and then the lesions faded away with pigmentation remaining, so that one got the picture of recent lesions, scale or crust formation (scratching) and stain. The distribution was similar to that observed in Dr. Shaffner's patient. In determining the diagnosis, pityriasis lichenoides chronica should not be left out of consideration.

DR. PUSEY considered the case a tuberculid.

DR. WILE still thought it was a case of pityriasis lichenoides chronica. He had seen two cases which were almost identical and would like to suggest to Dr. Shaffner that a tuberculin test be given to see whether there was any local reaction. Secondly, he would suggest that one of the lesions in which there was a suggestion of central necrosis be excised and examined to determine whether the picture was one of tuberculid. He thought a biopsy would rule out the tuberculid.

CASE FOR DIAGNOSIS. PRESENTED BY DR. LIEBERTHAL.

The patient was a colored man, of 45 years. The affection began twelve to thirteen years ago as a small, red spot on the right hand and gradually spread all over the dorsum, with intense pigmentation and subsequent gradual depigmentation. The right dorsum became affected in a similar manner about six years ago. The palms of the hands became lighter in color and hyperkeratotic, five to six years ago. The clinical examination showed the rest of the integument and mucous membranes unimpaired. Within the intensely pigmented areas of the dorsa were found islands of papillary elevations. There was slight itching. The sensations of the skin and perspiration were normal. The patient had not been taking arsenic, but had used mercury externally and received injections seven or eight years ago.

DISCUSSION

DR. MCEWEN thought the lesions looked like the result of the ingestion of arsenic and as the patient said he had had no arsenic it might be that he had been under the influence of arsenic without knowing it.

DR. HARRIS thought the principle thing of interest was the infiltrated, red border which was very noticeable on the right hand. He had thought of syphilis but the history was against it. He thought there was a distinct atrophy, for when the man held out his hand the skin wrinkled as an atrophic skin would wrinkle. He thought it was a case of lupus erythematosus.

DRS. WILE, PUSEY AND MCEWEN considered it a case of lupus erythematosus.

DR. LIEBERTHAL would not venture a diagnosis until he had made bioscopic and general examinations. The absence of atrophy and purely hypertrophic lesions spoke against lupus erythematosus; however, there might be a double process. In case of arsenical dermatitis there should have been expected keratosis of the feet and pigmented spots on other parts of the body. Although not offering it as a diagnosis, yet acanthosis nigricans might be mentioned, as also occurring on the hands, if hyperpigmentation and papillary hypertrophy be considered. The speaker said he would make a more thorough examination of the patient and demonstrate him at a future meeting.

MANHATTAN DERMATOLOGICAL SOCIETY

Regular Meeting, Dec. 8, 1916

FRED WISE, M.D., *Chairman*

PERFORATING ULCERS OF THE FEET. PRESENTED BY DR. ROSEN.

Mrs. F. B., 40 years of age; married; two children living; one miscarriage; No history of syphilitic infection; from Dr. Fordyce's clinic. About seven years ago an ulcer developed on the plantar surface of the left foot, involving the second toe. This increased in size and depth, and after consulting several surgeons she was advised to have the toe amputated. This was done. About two years later another ulcer formed on the plantar surface of the same foot, opposite the third and fourth toes. This gradually increased in size and depth. It was not very painful but would annoy her very much in walking.

On examination there was an ulcer about the size of a five-cent piece, conical in shape and edges inverted. Radiating from this ulceration were two fissures about one inch in length and one-half inch in depth. On probing the ulcer the instrument penetrated about one inch and no bone could be felt. On the plantar surface of the right foot, opposite the third and fourth toes, were two fissures similar in character to the ones on the left foot. The general examination of this patient revealed symptoms of tabes dorsalis, with the lesion high up in the cord. The pupils were contracted and reacted very sluggishly to light and accommodation. All her superficial and deep reflexes were very much inhibited, and were only present on reinforcement. There was a slight Romberg and no ataxia. The Wassermann test of her blood serum was four plus. Spinal fluid examination, Wassermann four plus. Lymphocytes, 11; globulin, two plus, and the gold sol. test, 222211111.

DISCUSSION

DR. GOTTHEIL said in such cases there was always a bone lesion, either an osteitis or periostitis. He had seen it occur in Kaposi's sarcoma, leprosy and various central affections. In a real atrophic ulcer there had to be a sinus going down to the bone and periosteum.

DR. WISE said an orthopedic surgeon told him that cases of this type could be relieved by making plates for the feet and preventing pressure over the areas of ulceration.

FOLLICULITIS DECALVANS. PRESENTED BY DR. GEORGE H. FOX.

The patient was a male adult, from Havana, Cuba. The disease was of two years' standing. The speaker at first glance agreed with a diagnosis of alopecia areata, which had been made, but on looking more carefully, he found patches of a different character. There was some redness of the skin due to carbolic acid, which had been applied. There were no hairs with atrophied "exclamation point" roots. The patches were not large and irregular in size as in alopecia areata, but were all small and grouped in a certain area on the crown of the head. This was not a neurotic affection, but an inflammatory condition. It was a mild form of folliculitis decalvans or what had been termed alopecia cicatrisata. Instead of there being bald patches of soft skin from which the hair had fallen out, there was here an inflammatory condition, which had developed gradually in the last two years. There had probably been first redness of the scalp and later an inflammation around the follicles, which destroyed the hair. The patches were not the smooth white ones of alopecia areata but were of an atrophic or cicatricial character. One or two of the marginal hairs had been pulled out with the sheath attached to the root.

DISCUSSION

DR. GEORGE H. FOX said in answer to a question, that pélade was the French name for alopecia areata, but pseudo-pélade was an inflammatory condition, a folliculitis, in which there was marked resemblance to ordinary alopecia areata as in the case presented. There was often some redness of the skin with inflammation around the follicles and a gradual and permanent loss of hair. There were three diseases which might all be included in folliculitis. First, alopecia cicatrisata, described by Crocker (the pseudo-pélade of Brocq), which showed multiple smooth patches, which seemed to be atrophic. Second, the typical folliculitis decalvans, in which there was plugging of the hair follicles in groups, with resulting loss of the hair and a most characteristic cicatricial alopecia. Third, a condition described by Unna as ulerythema sycosiforme, apt to occur on the cheeks and sometimes called lupoid sycosis.

SPONTANEOUS INVOLUTION OF AN ANGIOMA. PRESENTED BY DR. BECHET.

The parents of this female child, aged 20 months, stated that they had noticed shortly after birth, two small nevoid spots, one on the right upper eyelid and the other on the right temporal region. These spots gradually grew larger, met to form a single mass, and growing slowly, assumed the appearance observed by the speaker when the child was first seen, on May 20, 1915. It was then three months old. Involving the entire right eye, frontal and temporal regions, was an enormous angiomatous mass, several inches in diameter and greatly raised above the adjoining healthy skin surface. The lesion was particularly striking because of its size and extent. The eye was entirely closed and filled with pus; it could hardly be retracted, the conjunctivæ were greatly injected and the eye seemed to be in an alarming condition. Here and there through the mass were evidences of ulceration and spontaneous involution. An eye wash and a boric acid salve were prescribed. The case was seen once again a week later, and there was no perceptible change. The parents were advised to do nothing except keep the lesion clean. On Dec. 2, 1916, nineteen months later, the child was seen again; in the interval nothing at all had been done. The remarkable improvement in the lesion was at once noticed; it had almost entirely disappeared; only slight remains at its lower margin were noted and there was also some moderate telangiectasia. The scar was soft and pliable and the cosmetic result apparently excellent. The case demonstrated the value of non-interference in these large angiomas when involution through thrombosis and ulceration apparently had already begun.

DISCUSSION

DR. OCHS said that some time ago he showed two cases of cavernous angioma, in which he had applied the solid carbon dioxid snow. At that time Dr. MacKee made the remark that sooner or later many of these cases healed spontaneously and especially so, if traumatism or any ulceration took place. This case of Dr. Bechet's proved that remark exactly. The speaker had seen one or two cases react, but not as thoroughly as had Dr. Bechet's and thought it was due entirely to an infection.

DR. HOWARD FOX said that the question of the spontaneous cure of angiomatous nevus had been previously discussed by Drs. Kingsbury and MacKee and himself. He wished to emphasize the probability of spontaneous cure in most cases of the elevated type of angiomatous nevus as opposed to the ordinary port wine mark which persisted indefinitely unless treated.

DR. GEORGE H. FOX said that as spontaneous thrombosis with or without resulting ulceration, could cure this lesion, why should they not treat these lesions and simply assist nature, producing the same result and saving time?

DR. GEYSER said he was very glad that point had been raised. He had written at least a dozen articles, in which he had stated that it was not the

result of the agent, but the reaction of the living tissue to the agent. It made no difference how the reaction was brought about, whether by injury, trauma or infection, it was the reaction of the cells to an agent.

MORPHEA TREATED BY THYROID EXTRACT. PRESENTED BY DR. WEISS.

The patient was a female adult, who was shown at the October, 1915, meeting, and who presented on the forehead a cured lesion of morphea consisting of a band-like, hard, elevated, violaceous skin infiltration, extending from the root of the nose, diagonally over the right side of the forehead and scalp. When the speaker first tried the thyroid treatment it met with little response as the patient was negligent. When he finally persuaded the patient to take the drug regularly, results were obtained and within three months the morphea disappeared entirely. The patient exhibited symptoms of thyroid insufficiency, as heavy, edematous eyelids, dry skin, puffiness of the face, increase of weight, slow pulse, fatigue, premature thinning of the hair, amenorrhea, etc. The study of the anthropological marking gave the indications for the drug.

DISCUSSION

DR. HOWARD FOX said the Society was certainly indebted to Dr. Weiss for showing such an extraordinary result. He had recently heard of Dr. Johnston's success with pituitary extract and Dr. Wallhauser's success with solid carbon dioxid snow in the treatment of scleroderma. He had formerly considered the treatment of this disease practically hopeless.

DR. SATENSTEIN said that when thyroid preparations were given, the patient's general condition was generally overlooked. The dose, in most instances, was either too small or too large. The object of exhibition of thyroid preparations was to either ease the strain on the overworked gland or to take the place of the glandular secretion, when the gland was insufficient. If too large a dose was given the clinical results desired were rarely obtained, as there resulted an increased oxidation, the tissues, as it were, burnt away, and the gland stimulated often to the point of exhaustion. If too small, the insufficient gland was not much assisted. The insufficiency as usually seen, was often very slight, and small doses of the thyroid preparations sufficed. That was one of the reasons, the speaker believed, why the excellent clinical results by one-third of a grain of thyroid extract daily was obtained by Dr. Weiss in the case he presented.

DR. BECHET said that in the discussion of the treatment of morphea, it might be of interest to report the very good results he had had with the electric needle in the treatment of a small patch about the size of a five-cent piece, on the end of the nose. When last seen a year after the last treatment, the patch had almost disappeared. Nothing internally had been given.

DR. ABRAHAMS said he remembered the case very well and that he had suggested treating the patient with thyroid extract. He noted the remarkable change of opinion which the members of the Society had undergone since this patient was first presented, when they said with one accord that thyroid extract was not indicated. When the Society was organized he presented a man about 50 years of age, the father of a New York physician, who had had a scleroderma which was absolutely cured with thyroid extract. They might accomplish the same results in scleroderma that they could in morphea. The speaker did not think they would always get results the same as Dr. Weiss' with small doses and every patient ought to be studied with reference to thyroid extract. Whether for morphea or scleroderma, these patients had a susceptibility to thyroid and they would immediately get a response from the heart, which became rapid, some after small doses of one-eighth grain and some would not, unless given five grains, and to lay down a rule for which there was no exception, would, he thought, in the greatest majority of cases, do no good. Another

thing the speaker would suggest in giving thyroid extract, one should never fail to combine it with strychnin, that it was a very important combination.

DR. GEYSER said he used to give one-fourth grain of thyroid extract where he now gave one-fiftieth and thought they got better results with one two-hundredth grain than one-fourth. This was far better than one-fourth grain doses in all cases where it had been indicated.

DR. WEISS said he was sorry to differ with Dr. Geyser's statement, as applied to all cases. Where there was a total ablation of the thyroid gland, one must feed it fifteen and twenty grains a day and if one did not, the patient would have myxedema as long as he lived.

DR. GEYSER said he had a case of cretinism which came from Long Island, in which doctors had assured the parents of the patient that nothing could be done. The child had been treated with one-fourth grain of thyroid and he gave one two-hundredth grain a day. The patient now conversed with everybody and had improved in only four weeks' time.

DR. SATENSTEIN said the question of dosage of thyroid preparations was based on the underlying principle of equilibrium of metabolism. This was admirably seen when iodides were given. As soon as this equilibrium was passed, iodism set in. The practice of giving larger doses at this time was only to further stimulate the gland to the point of exhaustion and symptoms of insufficiency set in. The same applied to thyroid preparations. When the proper dose was exhibited, the gland was assisted to reestablish the normal equilibrium of metabolism, and clinical results, sometimes surprising, were obtained. But when large doses were given, no results were noticed and the patient's condition very often was aggravated. Thus in morphea with symptoms of thyroid instability and not those of marked insufficiency, small doses were sufficient, but in myxedema with manifestations of almost complete insufficiency, large doses were necessary. Indications for the proper endocrine gland therapy were often overlooked, as only the clinical condition for which the patient presented herself was noted. This, as a rule was only the end result of disturbances of the entire system. If the general condition of the patient was thoroughly investigated and the so-called markings of the individual noticed, proper combinations would be indicated and good clinical results obtained. That was the reason why thyroid extract in Dr. Weiss' case did the work and the pituitary extract in Dr. Johnston's case of morphea. This was also seen in psoriasis; some did well and others were not at all influenced by thyroid therapy.

DR. WISE asked whether in all cases of morphea and localized scleroderma the patients presented other symptoms of thyroid disorder than the skin lesion.

DR. MACKEE wanted to know how one could tell where thyroid extract or some other gland was indicated.

DR. WEISS, referring to Dr. MacKee's question, said he would try to answer it. Before attempting to treat a case with the extracts of the ductless glands, one must first take due notice of the anthropological markings of the patient. Everybody exhibited one or more of them. They were the trademarks, as it were, under which our bodies were consigned for this life's journey. We had to observe the color of the skin and hair, the growth, the development of the different parts of the body, the distribution of the hair and the skin reaction. We had to determine the genesis of symptoms, the time and onset and the character and combination of symptoms. We had to know the functional enunciations of the ductless glands, their interrelations, their disbalance, singly and in combination. We must try to get, if possible, the prenatal history and the history of childhood. We would find, for instance, that with thyroidal insufficiency there was a history of measles, because measles damaged the thyroid, just as diphtheria damaged the adrenals. This explained the frequently observed sudden deaths in diphtheria. These were only a few instances

of how to act logically and not in a haphazard way. It was constitutional, medical and pathologic physiology we had to study. The postmortem findings did not reveal the slight disturbances which took place in vivo. Devoted study, unbiased attitude, and at the same time avoidance of over-enthusiasm would pave the somewhat arduous path for an intelligent understanding of the endocrine system and its great influence on the economy. This patient, who was cured of her morphea on the forehead and scalp by the administration of thyroid extract, had extensive subthyroidal markings. Here the substitution therapy was bound to be successful.

DR. MACKEE asked whether, as a result of Dr. Weiss' remarks, it might be inferred that lack of function of the pituitary and thyroid might be the etiologic factors in the production of scleroderma and morphia.

DR. WEISS said he was not prepared to say whether lack of function of the thyroid and pituitary was the etiologic factor in the production of scleroderma and morphea. Among the various causes assigned, thyroid disease, with and without coexisting Graves' disease, had been reported. He believed that a disbalance of the thyroidal function, an instability, as it were, in the sense of a hypofunction as well as of a hyperfunction, may be the causative agent. The administration of the extract had yielded excellent results in cases where hypothyroidism was present.

DR. SATENSTEIN said that the clinician must not expect the glandular preparations would give results every time, in every case. These preparations did not do much good in the presence of intestinal disturbances. They only aggravated the condition. The patient must often be prepared for glandular medication. The physician must not forget that there were many other drugs that had the property of stimulating the ductless glands.

MORPHEA OR SCLERODERMA. PRESENTED BY DR. WEISS.

The patient, a female, aged 42 years, had five children, the oldest 17 and the youngest 5 years and had had no miscarriages. She had a history of measles and began to menstruate at the age of 20. She had no headache during menstruation, but had vertigo. Two years previously she started having cold and livid fingers and toes, and ulcerations of the finger ends, which became more and more livid, cold, waxy in appearance and atrophic. She also had a trophic ulcer on the dorsum of the left leg. It impressed one as a case of Raynaud's disease, but there were some symptoms which pointed to scleroderma, especially on the face. Her facial muscles did not depict emotions. They were stiff, expressionless, showing an almost immobile countenance. The case was presented with a double diagnosis of morphea or scleroderma of the face and Raynaud's disease of the fingers and toes. It seemed that the symptoms of the latter disease were a consequence of the scleroderma and the hide-bound condition of the finger tips. The foot exhibited scleroderma and an atrophic ulcer. The lesion had been present three and one-half years, had an indolent character and was very painful. Repeated tests showed Wassermann negative reaction of the blood.

ERYTHEMA INDURATUM. PRESENTED BY DR. OCHS.

The patient, a female adult, had been presented before the Society two and one-half years previously. At that time she was presented under the diagnosis of erythema induratum or Bazin's disease and the diagnosis was severely questioned. One of syphilis hereditaria tarda was made. The Wassermann test was repeatedly taken and was always negative and in spite of the fact that she had had several salvarsans and mercurial injections, there was no good result. The condition had lasted some nine years, with the exception of about eight months, when she had comparative rest; the disease had been progressing, healing up in one part and breaking out in others. The lesions started as deep-seated nodules, which quickly raised up, resulting in ulceration. In the

history, as quoted, the father of the patient was suspected of having had syphilis. The only point in which the members differed with the speaker was in regard to two lesions high up on the thigh.

PAPULO-NECROTIC TUBERCULID AND LUPUS ERYTHEMATOSUS. PRESENTED BY DRS. MACKEE AND WISE.

The patient was a female adult, who had been presented as a case of lupus erythematosus of the face and papulo-necrotic tuberculid of the hands, at the last meeting. The tuberculid was then so indistinct that most of the members doubted its existence. It was, however, very marked on presentation and had developed since it was last shown. The lesions were present on the hands and face, presenting numerous necrotic nodules, most marked on the hands.

DISCUSSION

DR. PAROUNAGIAN said he had seen the patient last September in consultation, and that his diagnosis was acne necrotica and lupus erythematosus. She then had a great many discrete necrotic papules on the forehead and face, which had disappeared, leaving the lupus erythematosus lesions more distinct.

DR. BECHET said he had recently presented a case of sarcoid and lupus erythematosus at a meeting of the Academy. The lupus erythematosus lesions affected the face and scalp. The sarcoid tumors were located on the face and upper arms. A larger number of these tuberculids associated with lupus erythematosus seemed to have been reported of late. There might be some truth in the view of the tuberculo-toxic theory as to the causation of lupus erythematosus. It might be possible that the tuberculids, sarcoid, lupus erythematosus, etc., belonged to a group of dermatoses with the same etiologic factor, some atypical, and as yet unknown form of the tubercle bacillus.

LINGUA GEOGRAPHICA. PRESENTED BY DRS. MACKEE AND WISE.

The patient was a small boy, aged 6 years, from Dr. Fordyce's service at the Vanderbilt Clinic. His tongue presented circinate and festoon-like lesions, which affected chiefly the edges, and according to the mother's account, varied in size, location and general appearance, from one week to the next. Treatment had been of no avail. The Wassermann test was negative.

XANTHOMA TUBEROSUM MULTIPLEX. PRESENTED BY DR. PAROUNAGIAN.

The patient, Mrs. D., was a Russian, aged 50 years. None in her family had a similar skin affection. The duration had been about three years. The lesions were symmetrically distributed on the following locations: extensor surfaces of the elbows and knees, on the buttocks, extending to the middle of the thigh, on the dorsal aspect of the left hand and a single lesion on the lower lid of the right eye. The lesions ranged in size from pinhead to bean size; some of them were yellowish or orange in color, some were red with dilated blood vessels and they were firm in consistence. No mucous membrane lesions could be found. The urine examination did not reveal sugar. The elbow lesions were of about three years' duration, the eyelid one year, those on the knees about a year and on the thighs, three months. There were no subjective symptoms.

XANTHOMA TUBEROSUM MULTIPLEX. PRESENTED BY DRS. MACKEE AND WISE.

The patient was a male adult from Dr. Fordyce's clinic, and presented lesions consisting of numerous yellow nodules, isolated and confluent, varying in size from a pinhead to a pea, situated on the palms, elbows, knees and over the Achilles tendons.

DISCUSSION

DR. SATENSTEIN said that the tissues examined showed evidence of retrogression. The individual cells, filled with fat, could not be noted. There were irregular spaces marking the sites of the xanthoma zone.

DYSIDROSIS. PRESENTED BY DR. WEISS.

The patient, a male adult, exhibited deep seated vesicles on both hands, on the palmar and interdigital surfaces of the fingers, and also on the dorsal surfaces of the hands and legs. The case was an extensive one and the speaker had obtained good results by painting the affected regions with a 20 per cent. solution of nitrate of silver.

INFECTIOUS ECZEMATOID DERMATITIS. PRESENTED BY DR. ROSEN.

The patient, J. S., male, aged 22 years, was from Dr. Fordyce's service at the Vanderbilt Clinic. The history was as follows: For the past fifteen years he had had a purulent otitis media (left side); never had a skin disease of any kind before. Four months ago the auricle of the left ear became edematous and moist and in a few days this condition spread to the other parts of the face. In about two weeks from the onset, the entire face, head, neck, chest and trunk were covered with a weeping, crustaceous eruption, more marked on the head and face. The ear was discharging a thick, purulent fluid, more marked during the past few weeks than ever before.

DISCUSSION

DR. WALLHAUSER said the subject of infectious eczematoid dermatitis was one of considerable interest, as cases that could be classed under this title were frequently encountered. He had had a case recently, which resulted from an inflamed hemorrhoid, in which a pustular dermatitis gradually developed, involving the crural fold; this was followed by a generalized dermatitis, which presented all the characteristic features of dermatitis exfoliativa generalisata.

DR. SATENSTEIN said that one could readily understand the process of this condition. There was a focal infection with formation of pus and toxins. The toxins were absorbed and sent out in the circulating blood. As long as they remained in the circulation there was no clinical manifestation in the skin. As soon as they were deposited from the terminal vessels to the surrounding tissues, there resulted a reaction similar to the original lesions, at which point the toxin was produced.

ACUMINATE SYPHILID RESEMBLING VARIOLA. PRESENTED BY DRS. HOWARD FOX AND PISKO.

The patient was a negro, aged 25 years. He presented a generalized, acuminate pustular eruption on the trunk and extremities that was very suggestive of smallpox, except that there were practically no lesions on the face and none on the wrists and hands. The eruption had appeared eight days previously. There were three well-marked vaccination scars on the right arm, of five years' duration. In favor of syphilis was the presence of a marked general adenopathy which appeared three weeks ago, and an angina. There was an old scar on the penis, but no evidence of a recent chancre. There was a slight rise in temperature. The Wassermann had not been reported.

DISCUSSION

DR. OCHS said this case was particularly interesting to him for the reason that he had called up the health department about two years previously in regard to a case quoted before the Society for discussion. He asked whether the health department knew anything new about the diagnosis of variola, and

if so, to communicate it to physicians. The case was that of a man who came to the Harlem Hospital with a pustular infection, affecting the forehead, nape of the neck and down as low as the scapula. He had lesions in the mouth and on the penis. The case was so interesting that the speaker sent the patient to Dr. George Henry Fox for consultation. There the case was seen by four dermatologists and all agreed that it was a case of pustular syphiloderm. Two days later, the man was taken sick and sent to the Harlem Hospital for a physician to treat him at his home. This physician notified the health department. The patient was taken away and reported to be a case of confluent variola, which diagnosis the speaker never accepted. Later, the man returned to the Harlem Hospital and the blood test then made showed a four plus Wassermann reaction. Colored people very frequently got pustular syphilodermas which very closely simulated variola. He asked Dr. Fox whether in his case all the lesions came out at once or not, for in his case there had been older and younger lesions at the same time, which would, in Dr. Ochs' opinion, exclude variola. He still adhered to the opinion that in variola there was but one crop, while in syphilis, as in varicella, there were several crops.

D. L. SATENSTEIN, M.D., *Secretary.*

Review of Dermatology and Syphilis

Under the direction of Fred Wise, M.D., New York

Assisted by

Clarence A. Baer, M.D., Milwaukee
Wm. H. Baughman, M.D., New York
Paul E. Bechet, M.D., New York
J. S. Eisenstaedt, M.D., Chicago
Charles Goosmann, M.D., Cincinnati
W. H. Guy, M.D., Pittsburgh
Robert C. Jamieson, M.D., Detroit
Frederick T. Lau, M.D., New York
M. F. Lautman, M.D., Hot Springs
Oscar L. Levin, M.D., New York
M. L. Ravitch, M.D., Louisville
Isadore Rosen, M.D., New York
Max Scheer, M.D., New York
Philip F. Shaffner, M.D., Chicago
A. W. Stillians, M.D., Chicago
John H. Stokes, M.D., Chicago
Harvey P. Towle, M.D., Boston
Vicente Pardo, M.D., Havana, Cuba

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(January-March, 1917, 29, Nos. 1-3)

Abstracted by Isadore Rosen, M.D.

THE PROPERTIES OF TETRYL (AS AFFECTING THE HUMAN SYSTEM). Lucy Cripps, p. 3.

Persons having a moist skin are more affected by tetryl than those whose skins are dry; the sweat being normally alkaline, forms a good solvent. The kinds of tetryl which affect the operators more are the fine powdery form and the large moist, dark colored crystals. Workers accustomed to the taking of alcohol suffer more acutely with the skin eruption.

Tetryl has a destructive effect on the fatty substance contained in the sebaceous secretions, it also produces abdominal symptoms, respiratory symptoms, hemorrhages from the mucous surfaces, headache and giddiness.

The respiratory symptoms are of two types, asthmatic and asphyxial; both types being due to the irritative effects on the bronchi. The causal factors of the hemorrhages, headaches and giddiness are still obscure; some observers claim it to be due to the influence of tetryl on the blood pressure.

The skin discoloration is usually the first evidence of tetryl poisoning; this is evidenced by a yellow tinging of the hands, face and neck. The exposed parts are the first to show the discoloration. The face may become swollen and congested, eyelids swollen and conjunctivae congested. Sometimes the patients complain of severe pains in the epigastrium, radiating over the entire abdomen, intermittent in character; nausea and vomiting may also occur. During these severe attacks there is no alteration in the pulse nor any rise of temperature. Some patients complain of difficulty in breathing and severe cough. Other symptoms may be epistaxis, excessive menstruation, and bleeding from the ears. The preventive treatment should consist of a thorough physical examination of all workers, and the exclusion of those with eczematous tendencies, pulmonary or gastric disorders, also persons showing excessive sweat capacity. The skin should be kept dry with powder when at work. The exposed surfaces should be washed in hot water, to which a solvent containing 20 per cent. ammonia has been added. Workers should be advised not to sleep in garments used at work, and to have a daily bath. Milk should be supplied to the operatives before beginning their work.

AN INVESTIGATION INTO THE CAUSE AND PREVENTION OF INDUSTRIAL DISEASES DUE TO TETRYL. WILLIAM L. RUXTON, p. 18.

Ruxton discusses at length the causes and prevention of dermatitis in tetryl workers. His investigations coincide with those of Dr. Lucy Cripps.

A CASE OF NODOSE BROMID ERUPTION IN A BREAST-FED INFANT. E. H. MOLESWORTH, with Comments by A. WHITFIELD, p. 30.

The authors report a case in a ten-months-old baby, who had been entirely breast fed and had taken no drugs. The mother had been taking 30 grains of potassium bromid for three or four months as a sleeping draught. The lesions were crusted and granulomatous. The pulse and temperature were normal. The lesions gradually disappeared about six weeks after the mother had given up taking the drug.

A CASE OF TINEA TONSURANS (MICROSPORON) IN AN ADULT. W. JENKINS OLIVER, p. 34.

A CASE OF LEUKOCYTHEMIA CUTIS. H. BATTY SHAW AND D. LOUGHLIN, p. 36.

The authors report a case in a man aged 37, who was admitted into the University College Hospital on Aug. 22, 1917. On examination, he was found to be febrile, the temperature reaching 102° F., the pulse was increased, and the patient looked ill. One's first impression on superficial examination was that it was a case of leprosy, for his face had rather a typical leonine expression.

Scattered over the face, forehead, neck, chest, trunk, thighs and legs were numerous soft, fleshy tumors, some of them purple in color, others red or pale pink, one or two of them showing superficial ulceration. The skin over the entire body showed a brownish pigmentation. There were subconjunctival hemorrhages in both eyes, the feet were edematous, there was no pruritus. There was enlargement of the inguinal glands, the spleen and liver were not palpable. The patient's memory was impaired, but no physical signs of disease of the nervous system could be made out.

Examination of the blood was made on five different occasions; on admission, the red cells were 830,000, and had increased to 1,800,000. The white cells ranged from 3,000 to 6,200. The red cells showed vacuolization and poikilocytosis. Macrocytes and microcytes were seen occasionally.

The diagnosis of leukocythemia cutis was made on the blood picture, which showed a severe secondary anemia, without the classical signs of pernicious anemia, and a qualitative change in the leukocyte picture. Similar skin changes have been reported by other authors.

A CASE OF LYMPHADENOMA WITH CUTANEOUS LESIONS. DUDLEY CORBETT, p. 42.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE

(May, 1917, 10, No. 7)

Abstracted by W. H. GUY, M.D.

TREATMENT OF SCABIES BY SULPHUR FUMIGATION. JOHN BRUCE, p. 89.

After a thorough hot bath, affected soldiers are placed in bath cabinets and the body exposed to sulphur vapor supplied by ordinary sulphur candles for from forty to fifty minutes, the clothing being steam sterilized separately. Thus

many patients are treated at one time and cured by a single treatment, four hours after which they are allowed to return to their units.

XANTHO-ERYTHRODERMIA PERSTANS. J. L. BUNCH, p. 96.

During discussion of this case it was suggested that parapsoriasis in plaques would be a better name for the condition.

FOLLICULAR KERATOSIS (LICHEN SPINULOSIS). J. H. SEQUEIRA, p. 97.

Report of two cases.

CHEIROPOMPHOLYX. S. E. DORE, p. 99.

A case report.

LUPUS ERYTHEMATOSUS. E. G. GRAHAM LITTLE, p. 100.

Report of two cases of unusual extent.

DERMATITIS HERPETIFORMIS. E. G. GRAHAM LITTLE, p. 103.

A case of the hydroa gestationis type. Dr. Pringle stated that further pregnancies should be avoided, the disease showing a tendency to aggravation with each succeeding gestation and finally ending fatally.

SYRINGOMYELIA. GEORGE PERNET, p. 105.

A case report.

TUBERCULOSIS CUTIS AND PHTHISIS. KNOWSLEY SIBLEY, p. 110.

Apical phthisis preceded tuberculosis verrucosa cutis of the left hand in this case.

ANNALES DE DERMATOLOGIE ET DE SYPHILIGRAPHIE

(January, 1916)

Abstracted by PAUL E. BECHET, M.D.

A NEW CONTRIBUTION TO THE STUDY OF GEOMETRICAL PHAGEDENA. L. BROCQ, p. 1.

Brocq concludes from his studies, that in the large group of phagedenic diseases, a special form clinically different from the other forms, should be set aside as a clinical entity. It develops on an antedating erosion or ulceration, either of an ecthymatous, chancrous or syphilitic nature. It is characterized by circles or ovals, areas of ulceration, absolutely geometrical in appearance. The borders are raised and infiltrated, their walls are either clearly cut or at an angle. The floor is filled with small abscesses, giving it a spongy appearance. Occasionally the borders are undermined with pus. The peripheral zone of infiltration is of a bright red color and from 4 to 15 mm. in extent. The lesion extends peripherally, and seems to be caused by some special pathogenic organism which has not yet been isolated. Geometric phagedenism develops most frequently on an antedating syphilitic lesion. Therapeutically, Brocq recommends excision, hot air, thermocautery, and applications of methylene blue, balsam of Peru or collargol.

INVASION OF PUBIC REGION BY PEDICULI CAPITIS. NICHOLAS AND MASSIA, p. 40.

Report of a case.

ANNALES DES MALADIES VENERIENNES

(*May, 1917, 12, No. 5*)

Abstracted by Paul E. Bechet, M.D.

A FAMILY OF HEREDO-SYPHILITICS; FIVE CASES OF APPENDICITIS AMONG EIGHT CHILDREN. Gaucher, p. 257.

Gaucher reports five cases of appendicitis among eight heredo-syphilitics. He believes that appendicitis is of syphilitic origin.

REPORT OF THE MEASURES TAKEN AGAINST THE EXTENSION OF SYPHILIS. Gaucher, p. 262.

This is not an original article, but a discussion of articles recommended by a committee for adoption by the French Academy of Medicine, of which committee Gaucher was secretary. In discussing the subject he brings out the very interesting fact of the mistaken diagnoses of military surgeons in matters dermatologic. He reports a soldier who had been recommended to the auxiliary service on account of a syphilitic lesion, which he found on examination to be a simple erythrasma. He relates an instance of a scabetic, who had been treated for over a year, invalided to four different hospitals for three months, placed on a milk diet, baths, etc., as the disease was thought to have been due to a preserved meat diet. Gaucher does not mention the gratitude of the patient after his first sulphur rub.

SYPHILITIC EPILEPSY. Levy-Bing and Gerbay, p. 265.

Levy-Bing and Gerbay believe that epilepsy is a syndrome, in which acquired or hereditary syphilis is a frequent cause. Syphilitic epilepsy is frequently complicated with cerebral phenomena such as paresis, paralysis, loss of memory, changes in character, etc. Consciousness is not entirely lost, the attack is usually of the Jacksonian type. Abolition of the reflexes, and Argyll's sign, are of great value in the diagnosis. Lymphocytosis of the cerebrospinal fluid, and a positive Wassermann reaction are also of value. It most frequently occurs in the late secondary and tertiary periods. It is important to recognize the specific element in syphilitic epilepsy, as the disease is curable, provided it does not occur as an ultimate phase of cerebral syphilis.

KERATOSIS BLENNORRHAGICA. Montpellier, p. 309.

Report of a case.

REVISTA ESPANOLA DE UROLOGIA Y DERMATOLOGIA

(*March, 1917, 19, No. 219*)

Abstracted by Vincente Pardo, M.D.

THE TECHNIC OF THE QUANTITATIVE WASSERMANN TEST. L. del Portillo, p. 121.

The original Wassermann reaction is a qualitative test, a constant amount of patient's serum being added to a constant amount of antigen. Portillo states that a quantitative test, varying the amount of patient's serum, gives a more accurate result; he employs four tubes for the test, placing in each one progressively increasing quantities of serum. The test would detect the slightest trace of syphilitic antibodies, and the doubtful reactions would be reduced to a minimum.

BULLETIN OF THE JOHNS HOPKINS HOSPITAL

(May, 1917, 28, No. 315)

Abstracted by R. C. JAMIESON, M.D.

THE MECHANISM AND CLINICAL SIGNIFICANCE OF ANAPHYLACTIC AND PSEUDO-ANAPHYLACTIC SKIN REACTIONS. JOHN A. KOLMER, p. 163.

Skin reactions are divided into three classes: specific, anaphylactic, nonspecific and traumatic reactions; either one of the last two, however, sometimes occur at the same time as a specific anaphylactic reaction and are also frequently mistaken for a true reaction. This is more likely to happen when the intracutaneous method is employed, although the latter method is more delicate in its readings.

In the case of traumatic and nonspecific reactions, the result may be due to trauma itself, the injection of an irritant or a toxin, or the production of a protein poison by the action of nonspecific proteolytic ferments on the protein of the patient's serum, cells or injected protein.

A specific reaction is due to interaction of a specific anaphylactic antibody and specific anaphylactogen, forming an irritant capable of producing acute hypermia, edema and leukocytic infiltration of the skin.

In general, it may be said that the degree of hypersensitiveness is indicated by the severity of the reaction, but cutaneous anaphylaxis to a bacterial protein does not indicate an immunity to the living organism.

Care should be exercised not to confuse a nonspecific with a true anaphylactic reaction as any protein substance can cause a nonspecific reaction if sufficient quantity is injected.

AMERICAN JOURNAL OF THE MEDICAL SCIENCES

(May, 1917, 153, No. 5)

Abstracted by R. C. JAMIESON, M.D.

FOCAL SEPSIS IN THE GENITO-URINARY TRACT AS A CAUSE OF CONSTITUTIONAL DISEASE. THOS. F. REILLY, p. 701.

Attention is called to the fact that in addition to disorders of the genito-urinary tract following gonorrhea, remote conditions may occur which do not respond to treatment until the focus of infection is removed from the genital tract.

Mention is made of pyorrhea due to vesiculitis, synovitis, arthritis, pleurisy, endocarditis, etc., as well as a punctate, papular eruption which appeared on a patient who received no medication but salol. The Wassermann test was negative. The eruption disappeared in two weeks, following three injections of antigonococcic serum. Another similar case was reported in which the roseola persisted in spite of treatment and disappeared only after vasopuncture and treatment of the seminal vesicles.

ARCHIVES OF INTERNAL MEDICINE

(May, 1917, 14, No. 5)

Abstracted by R. C. JAMIESON, M.D.

AN EXPERIMENTAL TEST OF THE RELATION OF SEWAGE DISPOSAL TO THE SPREAD OF PELLAGRA. J. F. SILER, P. E. GARRISON, AND W. J. MACNEAL, p. 683.

In the fall of 1913, a water carriage sewer system was installed in Spartan Mills, S.C., and for the years following, new cases became progressively less.

The changes in diet and general prosperity are given credit for some of the decrease in new cases, although in 1916 there were only two new cases, the financial situation being better than in 1914.

The authors recommended installation of sanitary systems of sewage disposal as a means to prevent the spread of pellagra and restrict recurrences.

THE INFLUENCE OF THE RADIATIONS FROM KROMAYER'S MERCURY QUARTZ LAMP ON THE CEREBRAL CORTEX.

H. WAGO, p. 801.

Rabbits were used and their brains radiated through trephined openings for 10, 20, 30 and 60 minutes, with the result that the cortex was affected by the ultraviolet rays in proportion to the time of radiation, the injury to the nerve cells varying from swelling and atrophy to the more destructive changes and death of the cell. Older rabbits were more resistant than the young. The neurofibrils showed no pathologic change, but it was thought that some degeneration had occurred on account of the retrogressive processes in the nerve cells.

JOURNAL OF LABORATORY AND CLINICAL MEDICINE

(March, 1917, 2, No. 9)

Abstracted by OSCAR L. LEVIN, M.D.

THE EFFECT OF CERTAIN DRUGS ON SKIN REACTIONS.

JOHN A. KOLMER, SAMUEL L. IMMERMAN, TOITSU MATSUNAMI, CHARLES M. MONTGOMERY, p. 401.

1. The iodids and particularly potassium iodid were found to influence the luetin and prodigiosin intracutaneous tests to a marked extent. Normal nonsyphilitic persons, reacting negatively to the luetin test, may show marked reactions when tested after the oral administration of 60 or more grains of potassium iodid.

2. The bromids of potassium and sodium in the same dosage were found to have a similar, but less marked influence.

3. The chlorids of potassium and ammonium in the same dosage were found to influence the prodigiosin reactions, but not the luetin reactions, except to a very slight extent.

4. The administration of the protiodid of mercury influenced the luetin reaction to some extent.

5. It is probable that the administration of larger doses of these drugs would exert a more marked influence on skin reactions.

6. Ether and chloroform anesthesia did not appear to influence skin reactions.

7. Substances most likely to excite inflammatory reactions in the skin appear to be most readily influenced by the iodids and to some extent by bromids; intracutaneous tests of agar-agar, prodigiosin and ordinary luetin were more readily influenced by these drugs than the reactions following the injection of a luetin of washed spirochetes and free of culture medium.

8. Cutaneous tests are not as readily influenced by these drugs as intracutaneous tests.

9. Conjunctival tests among normal rabbits made with tuberculin apparently were without effect.

10. Cutaneous and intracutaneous reactions of tuberculin among persons reacting positively to both, appear to be rendered more extensive by potassium iodid and to a lesser extent, by potassium bromid.

11. Anaphylactic reactions to luetin in syphilitic persons appear to be rendered more extensive by potassium iodid and potassium bromid.

12. The oral administration of potassium iodid and to a lesser extent, of potassium bromid, increased the phagocytic power of the blood serum for *B. prodigiosis;* the increased severity of skin reactions in persons taking these drugs may be due to heightened leukocytic infiltration and phagocytosis about the injected material, or to an increase of tryptic activity through the saturation of fatty acid radicals, according to the hypothesis of Jobling and Petersen.

13. Physicians should very carefully rule out the possible influence of these drugs before conducting skin reactions.

14. It is probable that these drugs have influenced the luetin reactions as clinically applied and have been responsible in part for the divergent results observed and reported.

HOSPITAL BULLETIN, DEPARTMENT OF PUBLIC CHARITIES OF THE CITY OF NEW YORK

(April, 1917, 1, No. 3)

Abstracted by OSCAR L. LEVIN, M.D.

THE DIAGNOSIS AND GENERAL TREATMENT OF SYPHILIS. JOHN A. FORDYCE, p. 110.

The fate of the syphilitic individual depends on the early diagnosis of the infection and the intensity with which treatment is carried out in the first six months. The dark field is of value in corroborating the diagnosis of a genital or extragenital chancre and should be employed to determine the possibility of a coincident infection with the *Treponema pallidum.*

The Wassermann test is of value in diagnosis, as a guide to the effect of treatment, and as a criterion of cure. It is of special value in all conditions of obscure etiology referable to the cardiovascular system, cerebrospinal system, or viscera in which syphilis might be a factor, and in cases with an indefinite clinical picture, such as neurasthenia, febrile attacks, etc.

The spinal fluid should be examined for a Wassermann test, a colloidal gold chlorid test, its cytology and its chemistry. The examination of the spinal fluid enables us to determine the activity of the syphlitic process in the brain or cord, to distinguish the various pathological types affecting the central nervous system, and in many cases to distinguish between these and nonsyphilitic processes. Its chief usefulness lies in distinguishing true paresis from types of cerebrospinal syphilis which simulated it and in diagnosing incipient cases before the clinical syndrome is established.

It is possible to cure syphilis when discovered in its primary stage with a negative Wassermann test. Eight to ten salvarsan injections should be administered, followed by mercury for six months.

Several injections of a soluble mercury should precede the administration of salvarsan in secondary syphilis with a beginning eruption and a positive Wassermann reaction. The most frequent early symptoms of involvement of the nervous system are irregularity of the pupils, persistent headache, optic neuritis, and auditory disturbance.

In latent syphilis with a positive Wassermann test an investigation should be made of the cardiovascular and of the nervous system, or of previous involvement of any of the viscera. In tertiary syphilis with a persistent positive Wassermann test without involvement of the nervous system, the beneficial effects of potassium iodid cannot be too strongly insisted on.

The criteria of a cure are a negative Wassermann reaction for at least a year, continuing so after a provocative injection of salvarsan, and a normal spinal fluid.

The paper is accompanied with descriptions of cases illustrating the various points made.

PELLAGRA. ALFRED POTTER, p. 130.

The case is reported because of the rarity of this disease in New York State. The patient was a white woman, aged 55, born in Brooklyn, of Irish descent, and lived in Brooklyn all her life.

BOSTON MEDICAL AND SURGICAL JOURNAL

(March 19, 1917, 176, No. 11)

Abstracted by OSCAR L. LEVIN, M.D.

PULMONARY SYPHILIS; WITH THE REPORT OF A PROBABLE CASE. CADIS PHIPPS, p. 390.

The typical lesion of pulmonary syphilis is a fibrous interstitial pneumonia extending along the bronchi and, less often, caseous pneumonia and gummata.

The symptoms of pulmonary syphilis are essentially those of pulmonary tuberculosis except that they are usually less pronounced. A history of syphilis, the presence of other syphilitic lesions, a positive Wassermann reaction, and the absence of tubercle bacilli in the sputum corroborate a diagnosis of pulmonary syphilis.

The case reported is that of a man, aged 31, who presented the history and physical signs of an advanced case of pulmonary tuberculosis. Because of the presence of a positive Wassermann reaction and cerebral symptoms the patient was given mercury and iodids. Rapid improvement occurred under this form of treatment, and as tubercle bacilli were not found in the sputum, the diagnosis of pulmonary syphilis was made.

(Ibidem, May 31, 1917, 176, No. 22)

THE USE OF RADIUM IN THE TREATMENT OF CUTANEOUS EPITHELIOMA AND KERATOSIS. FREDERICK S. BURNS, AND J. HARPER BLAISDELL, p. 774.

Twenty-two cases of epithelioma and keratosis in the author's private practice were cured by applications of radium. Radium treatment is recommended for epitheliomas occurring about the nose and eyelids, when surgery is difficult and the results deforming. An advantage over Roentgen-ray therapy is the accuracy of dosage and the greater margin of safety.

(Ibidem, May 24, 1917, 76, No. 21)

OBSERVATIONS ON MEASLES. D. M. LEWIS, p. 724.

As a result of his observations during an epidemic of measles, the author concludes that attempts to control measles must recognize carriers of convalescence. These may be recognized by the inflammatory condition of the mucous membranes of the nose, tongue and throat.

German measles is not a true entity, according to the author. It is either measles or influenza.

(Ibidem, July 12, 1917, 67, No. 2)

CASE OF PERNICIOUS ANEMIA IN A SYPHILITIC TREATED WITH SALVARSAN. LAWSON G. LOWREY, p. 52.

CANADIAN PRACTITIONER AND REVIEW

(April, 1917, 13, No. 4)

Abstracted by OSCAR L. LEVIN, M.D.

THE RADIUM TREATMENT OF MALIGNANT DISEASES OF THE LIP AND SKIN. W. H. B. ATKINS, p. 142.

It is recommended that radium should be employed as a prophylactic measure for the removal of persistent lesions of the lip which appear precancerous. Frequently the diagnosis of epithelioma of the mouth and lip is not made until the adjacent lymph nodes are involved and excision is impossible, owing to the extent of the growth and the nature of the tissue involved. In such cases, treatment with radium offers the best results.

As a result of his experience with several hundred cases of cutaneous cancer, the author believes that radium applications constitute the method of choice for the treatment of these lesions. The advantages are the ease of application, the lack of discomfort to the patient, the complete destruction and eradication of the cancer cells, and the excellent cosmetic results.

AMERICAN MEDICINE

(March, 1917, 12, No. 3)

Abstracted by OSCAR L. LEVIN, M.D.

PELLAGRA. E. M. PERDUE, p. 180.

The author attempts to refute the various theories concerning the cause of pellagra and asserts that there is no analogy between pellagra and beriberi or scurvy. He denies the vitamin theory and states that all researches but those of Profs. Alessandrini and Scala of the Institute of Experimental Hygiene of the University of Rome were not undertaken in good faith. The writer states that these authors explain the correct etiology of the disease in the following statements:

1. Pellagra is a chronic acidosis caused by colloidal silica in drinking water coming from clay soils.

2. Pellagra is a disease strictly localized and contracted only in those regions where the water commonly drunk originates in clay soils.

3. Pellagra has no relation to diet, work, domicile or sanitary environment.

The writer also states that the symptomatology of pellagra agrees in every particular with the toxicology of silica.

Colloidal silica is rendered inert by carbonate alkalies. The carbonates of calcium and magnesium when in excess of the colloidal silica in drinking water will prevent pellagra in those drinking the water regardless of their diet, labor, domicile and sanitary environment. It is suggested that the carbonates be given as an antidote for pellagra.

The prevention of pellagra consists in the drinking of a water of temporary hardness. Wells, springs, reservoirs and basins should be built of limestone and Portland cement. When this is not practical, a small amount of lime should be added to the drinking water.

The treatment of pellagra consists in the substitution of a common hard or limestone water for the pellagrogenic water. In addition, the silica intoxication

may be antidoted by the subcutaneous injection of 1 c.c. of a 10 per cent. solution of neutral sodium citrate, daily, for two weeks and every second day for two to three weeks longer.

(*Ibidem, April, 1917, 12, No. 4*)

DERMATOLOGICAL ASPECTS OF CHRONIC INTESTINAL STASIS. WILLIAM P. CUNNINGHAM, p. 225.

In intestinal stasis, there is a slowing of the stream and a retention of the food in the bowels with consequent putrefaction, and the liberation of toxins which are absorbed and produce disturbances in the various organs. The author theorizes and mentions various cutaneous diseases which are supposedly produced as a result of intestinal stasis; among these are chloasma, leukoderma, alopecia areata, scleroderma, bromidrosis, hyperidrosis, dermatitis, eczema, urticaria and acne. The author also discusses the possibility of pemphigus, mycosis fungoides and acanthosis nigricans being related to the faulty action of the damaged intestine.

In the cure of these conditions, it is suggested that the intestinal stasis be relieved by elimination of nitrogenized foods from the diet, the internal administration of mineral oils, support of the bowels with belts, and operation in severe cases.

INDIANAPOLIS MEDICAL JOURNAL

(*April, 1917, 20, No. 4*)

Abstracted by OSCAR L. LEVIN, M.D.

SOME ERYTHEMATA OFTEN WRONGLY DIAGNOSED. F. W. CREGOR, p. 155.

The writer points out the importance of differentiating the drug erythemata, erythema multiforme, erythema nodosum and erythema induratum from other cutaneous diseases and syphilis.

MOLLOSCUM CONTAGIOSUM AND REPORT OF THREE CASES. C. R. STRICKLAND, p. 162.

The symptomatology, pathology and treatment of the disease are described. The cases reported occurred in three children in one family.

MEDICAL TIMES

(*April, 1917, 45, No. 4*)

Abstracted by OSCAR L. LEVIN, M.D.

INTRA-ARTERIAL INFUSION OF NEOSALVARSAN FOR THE TREATMENT OF CEREBROSPINAL SYPHILIS. D. A. SINCLAIR, p. 89.

The rationale of this method of treatment depends on the introduction of neosalvarsan into the internal carotid artery, permitting the direct application of the drug to the cerebral tissue and subsequently to the spinal cord, by means of the spinal fluid which becomes medicated through the choroid plexuses of the ventricles. Too small a dose of salvarsan or neosalvarsan is given by the various intraspinal methods of treatment, and for this reason it is claimed

that the carotid route, by means of which from one hundred to six hundred times the spinal dose may be repeatedly given, should be productive of good results.

Three injections were given to an adult male paretic. The first dose of 0.55 gm. of neosalvarsan was followed in five weeks by a second injection of 0.9 gm., and in less than four weeks by a third injection of 0.9 gm. The first two injections were administered with the patient under ether anesthesia, and the third under local anesthesia, one-half per cent. novocain solution being used. No ill effects followed the injections. Ten days after the last injection there was a distinct physical and mental improvement.

THE TREATMENT OF SYPHILIS. FAXTON E. GARDNER, p. 92.

It is emphasized that the patient should be prepared previous to an intravenous injection of an arsenical preparation. Besides a small dose of salts every morning for four days and a physic the night before injection, a copious intake of fluid is prescribed to favor elimination through the kidneys. Unpleasant reactions from water impurities may be diminished by using small amounts of water, from 60 to 90 c.c. for 0.6 gm. of salvarsan and from 12 to 15 c.c. for 0.9 gm. neosalvarsan. In early cases, abortive treatment with salvarsan is attempted; but in old cases neosalvarsan is employed, as it is less toxic and less dangerous to use.

Galyl contains 36 per cent. of arsenic and 7.5 per cent. of phosphorous. It possesses a higher spirillicide power than salvarsan or neosalvarsan, and it is administered in doses of 0.4 gm. It produces a marked tonic effect and the prompt disappearance of active lesions and no unpleasant reactions.

For mercurial treatment the soluble salts are preferred. The advantages are: lesser local reaction; quick absorption; prompt effect, and no fear of accumulation.

The author doubts whether intraspinal treatment has any special worth.

ACNE. EDWARD H. MARSH, p. 105.

VIRGINIA MEDICAL SEMI-MONTHLY

(April 13, 1917, 17, 1)

Abstracted by OSCAR L. LEVIN, M.D.

VARICOSE ULCER; ITS TREATMENT. GEORGE A. CANTON, p. 13.

When contraindications do not exist the author advises the removal of the varicose veins. This depletes the stagnant condition of the superficial veins by forcing the superficial venous circulation through the deep venous channels, and thus promotes a healthier state of the tissues.

(Ibidem, May 11, 1917, 22, No. 3)

SYPHILIS OF THE STOMACH; REPORT OF A CASE. CARRINGTON WILLIAMS, p. 70.

The case reported is that of a man who had a chancre twenty years previous to the onset of gastric symptoms. He complained of a sharp, almost constant epigastric pain which was relieved by vomiting. In making the diagnosis, appendicitis was excluded as the appendix had been previously removed; and gall-bladder disease was ruled out because the organ had been found normal during the operation. Cancer was improbable because of the good general condition and the absence of blood in the stool and vomitus. Peptic ulcer was excluded because of the irregularity and character of the pain and the absence of blood.

The Wassermann reaction proved to be ++++, and the symptoms were relieved by antisyphilitic treatment with mercury and iodids.

(*Ibidem, May 25, 1917, 22, 4*)

SYPHILIS OF THE CIRCULATORY ORGANS. H. H. Hazen, p. 87.

Nearly 50 per cent. of all syphilitic patients develop cardiac lesions. These changes may be classified as follows: pericarditis, myocarditis, endocarditis, valvular disease, diseases of the coronary arteries, angina pectoris, cardiac aneurysm, and heart block.

Aortitis occurs in nearly one-half the patients and not infrequently terminates in aneurysm.

Peripheral arteritis is not common, and there is much confusion between it and Raynaud's disease.

Syphilis of the veins is characterized by the development of a diffuse thickening of the vein, a nodose thickening, a diffuse periphlebitis, and the erythema nodosum syphiliticum.

Gummata of the lymph nodes may be mistaken for tuberculosis, Hodgkin's disease, or lymphosarcoma.

Obituaries

Burnside Foster

Dr. Burnside Foster, one of the pioneer dermatologists of the northwest, died at his home in St. Paul, on June 13, 1917.

Dr. Foster graduated from the Harvard Medical School in 1886, shortly thereafter locating in Minneapolis, a few years later moving to St. Paul. He was a member of the American Dermatological Association and the first president of the Minnesota Dermatological Society.

Dr. Foster was noted for his scholarly and literary attainments, was editor of the *St. Paul Medical Journal* for seventeen years, and an authority on the history of medicine. For many years, at the University of Minnesota, he gave a very fascinating course of lectures on the history of medicine.

G. M. O.

William Beer Ewing

Dr. William Beer Ewing died June 17, 1917, at his home in Schenley Farms, Pittsburgh, at the age of 51 years. He received his degree in medicine in 1896 at the Western University of Pennsylvania, now the University of Pittsburgh. Soon after graduation he studied dermatology under Dr. T. C. Gilchrist at Johns Hopkins University, later establishing an office at Pittsburgh, where he practiced his specialty until the time of his death.

Dr. Ewing was professor of dermatology and syphilis at the University of Pittsburgh; a member of the Allegheny County, Pennsylvania State, and American Medical Associations; dermatologist to the Allegheny General, Children's, St. Francis, and Western Pennsylvania General Hospitals; and a member of various social and fraternal organizations. For several years he was president of the Pittsburgh Academy of Medicine and treasurer of the Allegheny County Medical Society.

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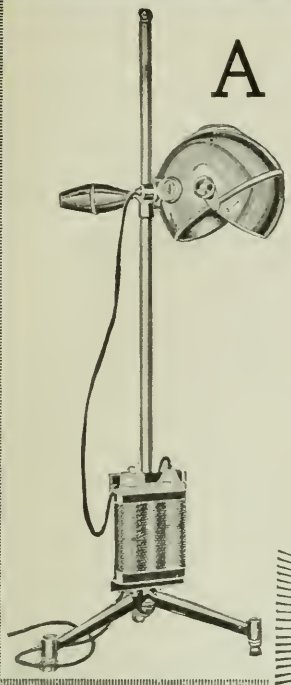

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